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TRANSCRIPT OF RECORD.

SUPREME COURT OF THE UNITED STATES

No. 106.

MORITZ COHN, APPELLANT,

vs.

THE UNITED STATES CORSET COMPANY, JONAS H. LANE, AND WILLIAM LYALL.

APPEAL FROM THE CIRCUIT COURT OF THE UNITED STATES FOR THE SOUTHERN DISTRICT OF NEW YORK.

FILED OCTOBER 9, 1874.

Nov 25th 1876
Appeal
for Stamp

SUPREME COURT OF THE UNITED STATES.

No. 106.

MORITZ COHN, APPELLANT,

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THE UNITED STATES CORSET COMPANY, JONAS H. LANE, AND WILLIAM LYALL.

APPEAL FROM THE CIRCUIT COURT OF THE UNITED STATES FOR THE SOUTHERN DISTRICT OF NEW YORK.

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1 The President of the United States of America to The United States Corset Company, J. H. Lane and William Lyall, greeting:

You are hereby commanded, that you and each of you personally appear before the judges of the circuit court of the United States of America for the southern district of New York, in the second circuit court, in equity, on the first Monday of July, A. D. 1873, wherever the said court shall then be, to answer a bill of complaint exhibited against you in the said court by Moritz Cohn, and to do further and receive what the said court shall have considered in that behalf. And this you are not to omit under the penalty on you and each of you of two hundred and fifty dollars.

Witness Hon. Nathan Clifford, associate justice of the Supreme Court of the United States, at the city of New York, on the thirteenth day of June, in the year one thousand eight hundred and seventy-three, and of the Independence of the United States of America the ninety-seventh.

KENNETH G. WHITE, *Clerk.*

KELLER & BLAKE,
16 *Murray st., N. Y., Complts. Solrs.*

The defendants are required to enter appearance in the above cause in the clerk's office of this court, on or before the first Monday of July, 1873, or the bill will be taken pro confesso against them.

K. G. W., *Clerk.*

2 I hereby depute William Scott to execute the within writ.

OLIVER FISKE,
U. S. Marshal.

JUNE 14, '73.

I do hereby certify that the within subpœna was served as appears by the annexed affidavit of Wm. Scott.

OLIVER FISKE,
U. S. Marshal.

JUNE 18, '73.

SOUTH. DIST. OF NEW YORK, *ss:*

William Scott, of lawful age, being duly sworn, deposes and says that he did on the 16th day of June, 1873, serve the within writ on the within-named defendant, the U. S. *States* Corset Company, by delivering a true copy thereof to, and leaving the same with, J. H. Lane, president of said company, and also on J. H. Lane individually, at No. 89 Leonard street, and on Wm. Lyall, at No. 517 West 23d st., in the city of New York, at the same time exhibiting to them the within original writ.

WM. SCOTT.

Sworn to before me this 17th day of June, 1873.

W. H. BISHOP,
Notary Public City of New York.

Filed June 19, 1873.

3 United States circuit court, southern district of New York.

MORITZ COHN
vs.
THE UNITED STATES CORSET COMPANY, J. H. Lane and William Lyall. } In equity.

To the honorable the judges of said court:

Moritz Cohn, of the city of New York, State and county of New York,

brings this his bill of complaint against the United States Corset Company, a corporation duly organized under and by virtue of the laws of the State of New York, and domiciled at the city of New York aforesaid, J. H. Lane, president of said company, and William Lyall, treasurer of said company.

And thereupon your orator complains and says that, being, on or before the 15th day of April, A. D. 1873, the original, true, and first inventor and discoverer of a new and useful "improvement in corsets" not known or used by others prior to his invention thereof, he made application to the Commissioner of Patents of the United States for letters-patent therefor, and having in all things complied with all the requirements of the statutes relative to the issuing of letters-patent, and especially having made oath that he was a citizen of the United States, and having paid into the Treasury of the United States the sum
4 required by law, the said Commissioner caused letters-patent to be made out and delivered unto your orator, the said Moritz Cohn, which are entitled for a new and useful "improvement in corsets," and are dated the 15th day of April, A. D. 1873, and are numbered 137893, and grant and secure unto the said Cohn, his heirs or assigns, for the term of seventeen years from the date of their issuing, the sole and exclusive right to make, use, and vend the said invention throughout the United States and Territories thereof, as will more fully and at large appear by reference to certified copies thereof here in court to be produced.

And your orator avers and charges the fact to be that he is the original, true, and first inventor of the said improvement, and that the same was not used by others before the discovery thereof by him.

Yet, your orator complains and says, that the defendants herein, though well knowing the rights of your orator under the said patent, and although notified of their infringement and violation of the same, and although asked to desist therefrom, and to account with your orator for past infringements, have, nevertheless, neglected and refused so to do, and do still neglect and refuse, and your orator is informed and believes that they have made and sold, within the southern district of New York and elsewhere, large numbers of corsets made and manufactured on the plan of the invention described and secured in and by the above-recited letters-patent, No. 137893, upon which this suit is brought, the sole and exclusive right to use which is vested in your orator; and that they have received large gains and profits from, and by reason of, their said unlawful and wicked infringement of your orator's rights; and he has reason to believe that they will continue so to manufacture and sell, and are thereby causing your orator great and irreparable damage, contrary to equity and good conscience; and your orator further shows your honors that the said invention is of great utility and value, and can be made to accrue to your orator large gains and profits, and be of great benefit and advantage to the public if infringement by the defend-
5 ant and their confederates be prevented; and complainant says that he is able, willing, and anxious to supply all the demands of the market therefor.

Whereupon, and in consideration of the matters and things hereinbefore stated and charged, and forasmuch as your orator can only have adequate relief in this court, where matters and things of this sort are made cognizable by statute, to the end, therefore, that these defendants may, if they can, show why your orator should not have the relief hereby prayed, and may, upon their several and corporal oaths, and in accordance with their best and utmost knowledge, remembrance, infor-

mation and belief, full, true, direct and perfect answer make to the matters and things hereinbefore stated and charged, and that they may be decreed to account with and pay over unto your orator the gains and profits which have accrued to them by reason of their said wicked and unlawful violation and infringement of your orator's said exclusive rights, as also the damages suffered by your orator by reason of this suit, and that these may be granted, with other and further relief, as the nature of the case may require and to your honors shall seem meet.

And may it please your honors to grant unto your orator the writ of injunction issuing out of and under the seal of this court, as issued by one of your honors, according to the form of the statute in such case made and provided, enjoining and restraining the said defendants, their agents, workmen, salesmen, or employés from the further manufacture or sale of corsets made and manufactured in accordance with or on the plan of the invention secured to the complainant herein, by his said letter-patent numbered 137893, and may then issue not only the writ of injunction above prayed for, but also the writ of subpœna directed to the said defendants, the United States Corset Company, J. H. Lane and William Lyall, and commanding them, on a day certain therein to be named, to be and appear before this honorable court, then and there to answer the premises, and to stand to, abide and perform such further order, direction, and decree as may be made against them.

6 And your orator, as in duty bound, will ever pray, &c.

M. COHN.

KELLER & BLAKE,
Solrs., and of Counsel for Complts.

UNITED STATES OF AMERICA,
Southern District of New York, ss:

MORITZ COHN, being sworn, says that he is the complainant named in the foregoing bill of complaint; that he has read the same and knows the contents thereof, and that the same is true of his own knowledge, except as to such matters as are therein mentioned on representation and belief, and as to such matters he verily believes it to be true.

M. COHN.

Subscribed and sworn to before me this 11th day of June, 1873.
[L. S.] THOS. P. HOW,
Notary Public.

United States circuit court, southern district of New York.

MORITZ COHN
vs.
THE UNITED STATES CORSET COMPANY, JONAS H. LANE, and WILLIAM LYALL. } In equity.

The answer of the United States Corset Company, Jonas H. Lane, and William Lyall, defendants, to the bill of complaint of Moritz Cohn, complainant, shows:

7 These defendants, now and at all times hereafter sav and reserving to themselves all and all manner of benefit and advantage of exception that can or may be had or taken to the many errors, insufficiencies, and imperfections in the said bill of complaint, for answer thereto, or to so much thereof as they are advised it is material or necessary for them to make answer unto, answering, admit that this defendant, the United States Corset Company, is a corporation duly organized under and by virtue of the laws of the State of New York, and domiciled at the city of New York, and that these defendants, Jonas

H. Lane and William Lyall, are respectively president and treasurer of said company.

They also admit that, on or about the fifteenth day of April, 1873, letters-patent of the United States were issued to Moritz Cohn, for an alleged improvement in corsets, dated on said last-named day, and numbered 137893, but whether or not the application for said letters-patent was made in due form of law, and whether or not said letters-patent were issued, as stated in said bill, these defendants do not know and are not informed, save by said bill, and leave the said complainant to make such proof thereof as he shall be advised is material.

These defendants, further answering, deny that said Moritz Cohn, the complainant herein, was the original, true, and first inventor or discoverer of said alleged improvement, or that the same was not used by others before the discovery or invention thereof by him.

These defendants, further answering, on information and belief, say that said alleged improvement was well known and in public use in this country, and was also described in printed publications, long before any invention*tion* or discovery thereof by said Moritz Cohn; and among others, that it was known to and used by Alexander T. Stewart, at the city of New York, who now resides in said city of New York, in the State of New York; and by Solomon Ottenheimer, Julius Ottenheimer, William Rothschild, and Simon Rothschild, at said city of New York, who
8 now reside in said city of New York; and by Charles Saatweber, at said city of New York, who now resides in said city; by Solomon Wormser and August Fellheimer, at said city of New York, who now reside in said city of New York; and by Margaret Lyall, Kate Rooney, and Lizzie Conkling, at the city of New York, who now reside in said city; and by Julius Hart, at the said city of New York, who now resides in said city; and by Charles Hesstonstall, at Providence, in the State of Rhode Island, who now resides at said Providence; and by the American Corset Manufacturing Company, at Providence, aforesaid, who are now domiciled at said Providence; and by the Boston Corset and Skirt Company, at Boston, in the State of Massachusetts, who are now domiciled at said Boston; and by the Convex Weaving Company, at the city of New York, who are now domiciled at said New York; and, among other publications, it was described in volume 2 of Specifications of Patents for 1854, published at Queen's printing-office, London, in the year, 1854, patent No. 143, (not paged;) and also that the same and substantial and material parts thereof were described in a provisional specification, left by John Henry Johnson, at the office of the commissioner of patents at London, with his petition, on January 20th, 1854, upon which provisional protection was given to the invention in said petition described, said invention being described and printed in volume 2 of Specification of Patents for 1854, published in London in that year, not paged, but numbered 143.

And these defendants, further answering on information and belief, show that large quantities of corsets containing said alleged improvement have been manufactured in England from the year 1850 to the present time continuously, and imported to and have been on sale in the United States, and have been largely and notoriously sold and used therein by a great number of persons long prior to any invention or discovery of said improvement by said Cohn. And these defendants, further answering on information and belief, show that said alleged improvement so patented, or attempted to be, by said complainant had been in public use and on sale in the city of New York and else-
9 where, by him and by others with his consent and allowance, for

more than two years prior to his application for a patent, whereby he lost all right, if he ever had any, to a patent therefor; that said complainant, more than two years prior to his application for said patent, publicly manufactured and sold in this country large quantities of corsets containing and employing said alleged improvement, and made large gains and profits therefrom, and that with the knowledge of said complainant and without his objection, but with his consent and allowance, said alleged improvement and corsets containing it, long prior to any application by him for a patent therefor, and long prior to any claim by him of a right to a patent therefor, went into general and public use, and were exhibited and sold in different markets in this country, and the same was thereby abandoned by said complainant and by him dedicated to the public.

These defendants, further answering, say that they are advised and allege that the specification of said patent contains false and fraudulant statements as to what was the state of the art in weaving corsets which preceded the time of said alleged invention, and that for that reason, among others, said patent is null and void; also that said specification contains false and fraudulent suggestions, intended by said complainant to deceive the public, and that for that reason, among others, said patent is null and void.

Also that said specification is defective from obscurity, and does not define and describe said alleged invention, as required by law, and does not so describe it *so* as to enable one acquainted with the manufacture of corsets to make and use it, and for that reason, among others, said patent is null and void.

Also that said alleged invention, as set forth in said patent, is not patentable subject-matter, and for that reason, among others, said patent is null and void.

And these defendants, further answering, deny that they have made or sold, within the southern district of New York or elsewhere, large numbers, or any, corsets made or manufactured on the plan of the invention described and secured in and by the aforesaid letters-patent upon which this suit is brought, or that they have made or sold any corsets the exclusive right to which is vested in said complainant, and they deny that they have in any way infringed any right or exclusive right belonging to said complainant.

And these defendants pray the same benefit of the facts and things herein set forth, as if, for the reason thereof, the said bill had been demurred to where a demurrer would have been proper, and the same benefit thereof as if they had specially pleaded to the said bill, where a special plea would have been proper.

And these defendants submit to the honorable court that the said complainant has no right to any further answer than is herein above contained, and no right to any injunction, account, or the other relief prayed for in said bill, and these defendants pray to be hence dismissed with their reasonable costs and charges, in this behalf most wrongfully sustained.

The United States Corset Company.

By J. H. LANE, *President.*
WM. LYALL, *Treasurer.*
J. H. LANE.
WM. LYALL.

JOHN H. V. ARNOLD,
Solicitor for Defts., No. 7 Beekman St., N. Y.
GEORGE GIFFORD,
Of Counsel.

UNITED STATES OF AMERICA,
Southern District of New York, ss:

JONAS H. LANE and WILLIAM LYALL, being severally duly sworn, each for himself deposes and says, that he is one of the defendants named in the foregoing answer; that he, said Jonas H. Lane, is president, and he, said William Lyall, is treasurer of the United States
11 Corset Company, one of the defendants in said answer named; and each of said deponents being further severally and duly sworn, does each for himself depose and say, that he has read the foregoing answer and knows the contents thereof, and that the same is true of his own knowledge except as to such matters as are therein mentioned and stated on information and belief, and as to such matters he verily believes it to be true.

J. H. LANE, *President.*
WM. LYALL, *Treasurer.*
J. H. LANE.
WM. LYALL.

Subscribed and sworn to before me this 13th day of August, 1873.
[L. S.] JAS. HENRY GREENSWARD,
Notary Public, N. Y. Co.

United States circuit court, southern district of New York.

MORITZ COHN
vs.
THE UNITED STATES CORSET COMPANY, J. H. Lane and William Lyall. } In equity.

It is hereby consented and stipulated by and between the counsel for the parties, complainant and defendants, in the above-entitled suit, that the answer therein may be amended by inserting after the words, "and by the Convex Weaving Company at the city of New York, who are now domiciled at said New York," the following: "By the Convex Weaving Company at Mott Haven, New York, who were domiciled at the city of New York; by T. H. Muller, at New York City and
12 Mott Haven, New York, who now resides at Yonkers, New York; by John Bear and George Jens Gregersen, at New York City and Mott Haven, New York, who now reside in said New York City; by John Graham, Robert Whitehill, J. G. Fitzpatrick, A. Winfheimer, Louis Schiele, S. Gutman, Joseph Beckel, James Cameron, Charles Saatweber, and K. McRae, at the city of New York, who now reside at the city of New York; by Fritz Guntz, at New York City and Mott Haven, New York, who now resides at ."

And that said answer may be considered as so amended on the filing of this stipulaiton in the office of the clerk of this court. It is further agreed that said amendment shall have the same effect, and no other, as if it had been included in the original answer, and that no further replication need be filed.

New York, Nov. 17, 1873.

KELLER & BLAKE,
Attys. for Complt.
GEORGE GIFFORD,
Of Counsel for Defts.

Circuit court of the United States for the southern district of New York.

MORITZ COHN
vs.
THE UNITED STATES CORSET COMPANY ET ALS. } In equity.

The replication of Moritz Cohn, complainant, to the answer of the United States Corset Company et als., defendants:

13 This repliant, saving and reserving unto himself all and all manner of advantage of exception to the manifold insufficiencies of the said answer, for replication thereunto, says that he will aver and prove his said bill to be true, certain, and sufficient in the law to be answered unto; and that the said answer of the defendants is uncertain, untrue, and insufficient to be replied unto by the repliant; without this, that any other matter or thing whatsoever in the said answer contained material or effectual in the law to be replied unto, confessed and avoided, traversed or denied, is true. All which matters and things this repliant is and will be ready to aver and prove as this honorable court shall direct, and humbly prays as in and by his said bill he has already prayed.

New York, August 20, 1873.

KELLER & BLAKE,
For Complainant.

United States circuit court, southern district of New York.

MORITZ COHN
vs.
THE UNITED STATES CORSET COMPANY ET ALS. } In equity.

Proofs for final hearing on the part of the complainant, taken before E. G. Thompson, one of the standing examiners of this court, under and pursuant to the 67th rule in equity as amended.

NEW YORK, *September* 11*th*, 1873—11 a. m.

Adjourned till September 16th, 1873, at 11 a. m.

14 NEW YORK, *September* 16*th*, 1873, at 11 a. m.

Adjourned till September 19, 1873, 11 a. m.

NEW YORK, *September* 19*th*, 1873—11 a. m.

Met pursuant to adjournment.

Present, Mr. Keller, of counsel for complainant.

Counsel for defendant appears by messenger, stating his inability to attend, although duly notified, as appears by service of notice, service of which was admitted September 10, 1873.

Mr. Keller offers to reserve to counsel for defendants all and every objection or exception to the examination or proofs put in evidence on the part of the complainant in this, the opening of the case.

And also to produce any of the witnesses that may be examined by him to-day, for cross-examination by counsel for defendants (should counsel for defendants desire to cross-examine them) on due notice.

Counsel for complainant offers in evidence original letters-patent of the United States, No. 137893, granted to Moritz Cohn, of New York, for "improvement in corsets," April 15th, A. D. 1873, certified copy of which letters-patent will be substituted, marked "Complainant's Exhibit No. 1, E. G. T., ex'r."

MORITZ COHN, the complainant, being produced as a witness, and having been first duly sworn, in answer to interrogatories propounded by Mr. Keller, says as follows:

1. Q. What is your name, age, residence, and occupation?

A. Moritz Cohn; I am 41 years of age; I reside at No. 256 West 23d street, New York City; I am engaged in weaving corsets and making hoop-skirts.

2. Q. Are you the complainant in this suit?

15 A. Yes, sir.

3. Q. Are you acquainted with the corsets manufactured by the defendants?

A. I am.

4. Q. Have you one of the corsets made by the defendants? and if yea, please produce it, that it may be made an exhibit in this case.

A. I have, and now produce it.

(Corset marked "Complainant's Exhibit Cohn No. 2, E. G. T., ex'r.")

5. Q. To about what extent have you manufactured corsets in accordance with your letters-patent, marked complainant's exhibit No. 1, E. G. T., ex'r.?

A. From one hundred to one hundred and thirty dozen a day.

The cross-examination of this witness is reserved to counsel for defendants.

M. COHN.

Subscribed and sworn to this 19th day of September, A. D. 1873.

E. G. THOMPSON,
Examiner.

J. N. MCINTIRE, a witness produced on the part of the complainant, being first duly sworn, in answer to interrogatories propounded by Mr. Keller, says:

1. Q. What is your name, age, residence, and occupation?

A. J. N. McIntire. I am 37 years of age. I reside in New York City. I am a patent attorney, and am frequently called as an expert in patent causes.

2. Q. State what have been your means of knowledge in reference to patents and inventions?

A. For about fifteen years past I have devoted myself to the preparation of applications for, and the procuration of letters-patent, and

16 to making expert investigations in different branches of the mechanic arts, for the purpose of determining the scope of claims of various patents, and giving expert opinions on questions of conflict between patent claims.

Previous to my present occupation I was for some time employed in the U. S. Patent-Office as draughtsman. I have been frequently called to testify as expert in suits before the United States courts, and have for some time past given the greater part of my attention to this branch of my business.

3. Q. Are you acquainted with the letters-patent marked "Complainant's Exhibit No. 1," and with the invention therein described?

A. I am. I prepared the application upon which said patent was granted, and believe I fully understand the invention therein described.

4. Q. Look at the corset now shown you, marked "Complainant's Exhibit Cohn No. 2, E. G. T., ex'r.," and state whether the pockets for the reception of the whalebones are woven substantially like or substantially different from the invention described in the complainant's patent, Exhibit No. 1?

A. In the patent, Exhibit No. 1, the inventor having pointed out, as the state of the art previous to his invention, that corsets had been woven with the pockets either running through the entire width of the web or stopped and finished off at a uniform distance from the edge thereof, and that in these known methods of manufacture two objections occurred or existed, viz, that a great deal of hand labor was necessary in stitching the pockets to effect the retention of the bones in the proper positions, or else the location of the bones at a uniform distance from the upper edge of the corset, resulting in an imperfection of shape or pattern, proceeds to say as follows:

"I propose by my invention to overcome the objections above named, and to produce a corset in which the location or position of the bones, endwise, shall be predetermined with the accuracy of the Jacquard in the process of weaving the corset stuff or material, while, at the same time, I effect a great saving in the labor and expense, and give a more perfect shape."

17 From this description, and the claim, I understand the invention to consist in a corset in which the pockets are woven of varying lengths relatively to each other, and so that when the bones are inserted the pockets so woven shall regulate the position of said bones, and properly retain them, without any stitching, in their right places.

Upon a comparison of the corset, complainant's exhibit Cohn No. 2, with the invention described in and referred to in the claim of said patent, complainant's exhibit No. 1, I find that the pockets in said corset are woven of variable lengths, and so that their closed ends are at different distances from the upper edge of the corset, so as to determine the positions of the upper ends of the bones and effect their retention in the right places, all in the same manner as described and referred to in the claim of said patent.

The cross-examination of this witness is reserved to counsel for defendants.

J. N. McINTIRE.

Subscribed and sworn to this 19th day of September, A. D. 1873.

E. G. THOMPSON,
Examiner.

Examination adjourned till new notice.

NEW YORK, *Nov.* 12, 1873—11 a. m.

Met pursuant to notice.

Present, Mr. Keller, of counsel with complainants, and Mr. Witter, of counsel with defendants.

And the witness, J. N. McINTIRE, being produced for cross-examination, and being cross-examined by counsel for defendants, says:

5. X Q. Are you familiar with the state of the art previous to the alleged invention of Mr. Cohn, as set forth in his patent, so far as it relates to the manufacture of corsets, whether by hand or power looms?

18 A. I have that familiarity with the state of the art which is expressed in the specification of the patent referred to, which, as before stated, was prepared by me. I know that it was the practice in that art to manufacture corsets after the modes pointed out in said specification; and in the course of careful and elaborate examination into the state of the art as illustrated by all the patents relating to this subject, both in this country and abroad, I have never been able to discover the particular mode of manufacture or improvement in the art made the subject of invention described and referred to in the claim of the said patent.

6. X Q. Are you aware that, previous to the alleged invention of Mr. Cohn, the manufacture of corsets in which pockets were stopped off in the weaving, was known?

A. I am well aware of the fact that, previous to the alleged invention of Mr. Cohn, corsets had been woven, and a mode of weaving corsets described, in which the pockets for the reception of the bones were stopped off, or had their ends closed up during the operation of weaving. This stopping off of the pockets occurred where the pockets were closed in the formation of the selvedges, (which were subsequently cut off in giving the final proper shape to the corset;) and it also occurred where the corset was woven with the pockets all of the same length. At the time of the procuration of Mr. Cohn's patent, the claim of his application was rejected, upon reference to an English patent, in which was described or suggested the weaving of corsets with the pockets stopped off, after the fashion or according to the mode last referred to; but, after careful consideration, the claim of the patent in suit was decided to be a proper one, and one embracing patentable novelty, in view of the prior state of the art and what was shown and described in said English patent.

(Counsel for defendant here objects to all that part of the answer which follows the words, "At the time of the procuration of Mr. Cohn's patent," &c., as irresponsive to the question.)

19 7. X Q. Do you know in what relation to the edge of the corset the pockets were stopped off in corsets manufactured previous to the alleged invention of Mr. Cohn; both whether stopped by sewing or by weaving? I refer to woven corsets.

A. The question is not exactly intelligible to me. If it inquires (as I understand it) whether I know in what relation to the upper edge of the corset it was common to stop off or close up the pockets for the bones, in woven corsets, in which the upper ends of the pockets were closed during the operation of weaving the corset, and also in woven corsets in which the pockets were closed by hand-sewing, I can answer by saying, that in these different kinds of corsets the pockets were stopped off at different points relatively to the upper edge of the corset; that is to say, in some corsets the upper closed end of the pocket was located at a certain distance from the upper edge, and in others at a certain other distance. And I can also answer that in corsets where the pockets were closed by sewing up, it was common to close said pockets at various distances from the upper edge in one or the same corset.

8. X Q. You understand my question correctly, but have not entirely answered it. Will you please reply now with reference to those corsets in which the pockets were stopped off in the weaving, and which did not traverse the whole corset; and state what relation the stopped-off ends of those pockets sustained to the edge of the corset?

A. I have already answered that part of the previous question which I understand to inquire as to the relation between the stopped-off ends

of the pockets and the upper edge of the corset in that kind of corsets in which the pockets were closed up in the operation of weaving. I said the pockets were closed up at a certain distance from the upper edge of the corset, which distance varied in different corsets. I may explain my answer further by saying that I meant to be understood as saying that the pockets were so closed up that when the bones should be inserted and forced home, their upper ends would all be located about the same distance from the upper edge of the finished corset.

20 9. X Q. Then, if these pockets were stopped at a uniform distance from the upper edge of the completed corset, must they not have been necessarily stopped at varying distances from the selvedge, or edge of the fabric in the loom?

A. Of course they had to be. If they hadn't been stopped at different distances from the selvedge in weaving the web, they couldn't possibly be stopped off at a uniform distance from the edge of the finished corset, which edge results from cutting the corset out of the web in an irregular line, or in a sort of zigzag curved line, which is not at all parallel to the selvedge of the web, but cuts off more of the web in some places than in others, and runs about parallel to an imaginary line, which would touch the closed ends or stopped-off portions of all the pockets.

10. X Q. Then, I understand that corsets woven in the manner you have described in your last answer, formed a part of the state of the art previous to Mr. Cohn's alleged invention; am I right?

A. I believe they did.

11. X Q. Do you know how a pocket is stopped off in the Jacquard loom; if you do, please state briefly the chief agencies employed in that operation.

A. I believe the Jacquard is the chief agency employed in that operation, the cards of which, I suppose, are made to read in accordance with the manner or design after which the warp is to be shed, so as to weave solid, or fill in such portions of the fabric as is to have no pocket, and so as to leave open the spaces to form the pockets.

12. X Q. Then, the point at which any given pocket is to be stopped is predetermined by the perforation of the cards of the Jacquard, is it not?

A. I am not perfectly familiar with the minutiæ or details of operation of the Jacquard loom by which these corsets are produced, but suppose the single and double, or open and closed portions, whereby the pocket with its closed end is formed, are predetermined by the Jacquard.

21 13. X Q. Do you consider that the Cohn patent is limited to any particular width of the pockets spoken of, or to any particular shape of the stopped-off ends of said pockets, whether round, square, or pointed?

A. I don't know that I am competent to answer the question of law in determining the construction of the patent. I am, however, quite sure that as to the invention described in the specification of this patent it is perfectly immaterial of what width the pockets may be formed or what peculiar shape or formation may be given to the closed-up ends of said pockets.

14. X Q. What in your opinion was intended by the word "necessarily" in the fourth line from the bottom of the second paragraph of the printed specification of Mr. Cohn's patent?

A. This word was intended, I suppose, to have the same meaning that would be conveyed by it when used in any other place.

15. X Q. Do you consider that the manufacture of corsets in which the pockets extended from edge to edge, and in which said pockets were so stopped off or closed up by sewing that when the bones were properly inserted in said pockets the portions of the pockets occupied by the bones were of varying lengths relatively to each other, formed a part of the state of the art previous to the alleged invention of Cohn?

A. I understand that the manufacture of corsets in the manner described in the question was perfectly well known previous to the invention of Mr. Cohn. This method of making corsets is alluded to in the Cohn patent, where the specification remarks the prior state of the art, and speaks of the "expense in stitching up the ends where they are woven with pockets running through from edge to edge, to hold the bones in place."

16. X Q. Do you consider that the invention described and claimed in the Cohn patent covers all corsets in which there are pockets for the reception of the bones, which were stopped off in the weaving, and which vary in length relatively to each other?

A. Of course not, because corsets in which the pockets were stopped off in weaving so as to have their closed ends all the same dis-
22 tance from the upper edge of the corset, had pockets varying in length relatively to each other, though lacking the characteristic feature which I understand to be the gist of the Cohn invention, namely, having the stopped-off ends of the pockets located at different distances from the upper edge of the corset.

17. X Q. Do you consider that the Cohn patent applies to all corsets in which the pockets are woven, and stopped off at different points relatively to the upper edge of the corset, regardless of the size or length of the pocket?

A. No, not exactly, because without a proper regard to the lengths of the pockets a corset might be made in which these pockets were stopped off at different points relatively to its upper edge, and yet might all be of such improper lengths that the corset would not be substantially like that made the subject of the Cohn patent, and would not be as good as the corsets properly made with the pockets all stopped off at the same distance from the upper edge; but I do consider that the Cohn patent or invention relates to all corsets in which the pockets are woven and stopped off at the proper and different points relatively to the upper edge, (or at the proper and different distances from the upper edge.)

J. N. McINTIRE.

Subscribed and sworn to the 12th day of November, 1873.
E. G. THOMPSON, *Examiner*.

23 United States circuit court, southern district of New York.

MORITZ COHN
vs.
THE UNITED STATES CORSET COMPANY ET ALS.

Proofs on the part of the complainant in rebuttal.

NEW YORK, *December* 29, 1873—11 a. m.

Met pursuant to notice.

Present: Mr. Keller, counsel with complainants, and Mr. Witter, counsel with defendants.

JOHN JACOB MANGOLD, a witness produced on the part of complain-

ant, being first duly sworn, in answer to interrogatories propounded by Mr. Keller, says:

1. Q. What is your name, age, residence, and occupation?

A. John Jacob Mangold; I am 61 years of age; I reside in Paterson, N. J.; I have not worked for the last four years; I have been sick.

2. Q. Were you ever in the employ of the Convex Weaving Company; if yea, from what time to what time; and in what capacity were you there employed?

A. I was employed by the Convex Weaving Company; I left in 1867–1868; I was foreman in the weaving department; I was employed there from 1863 to 1867–1868.

3. Q. As such foreman, were you familiar with corsets as there woven, and with the cards used in the Jacquard machine for such weaving?

A. Yes.

24 4. Q. Do you know John Baer; if yea, in what capacity was he there employed, whilst you were foreman, and during what time was he so employed?

A. I know John Baer; he was a corset-weaver; I cannot say exactly during what time he was so employed; a year or more he was so employed.

5. Q. State what his duties were while so employed.

A. As a weaver, he had to obey the rules and regulations of the factory.

6. Q. Did he have anything to do, under your direction as foreman, with fixing the looms?

A. He was a loom-fixer, and if anything was the matter with the looms he had to help fix them.

7. Q. When you left who became foreman of the weaving department of the Convex Weaving Company?

A. As much as I know, Mr. Baer became foreman in my place.

8. Q. Whilst you were foreman, state how the pockets for the whalebones were stopped off, near the upper edge of the corsets.

A. The pockets went from one end to the other end through.

9. Q. During the whole time you were foreman, were any corsets woven there, which had pockets stopped off in the act of weaving, at any distance from the selvedge of the cloth, of what would be the upper edge of the corset?

A. There were none so woven whilst I was there.

10. Q. If any had so been woven would you have known it whilst you were foreman?

A. Sure; yes, yes.

11. Q. Was it your practice, while you were foreman, to ascertain by some means whether any accidental stoppage in the pockets had taken place by reason of defects in the Jacquard? and, if so, state what you did.

A. That often occurred in the Jacquard—the accident stoppage; we took a pin and stuck it through to break the thread.

12. Q. Describe what sort of a pin, giving the size and length of it, about.

A. We took a pin and stuck in the pocket to see what was the matter—long enough to go through—round—and about a quarter of an inch in diameter.

25 13. Q. Did you know T. H. Müller, who was in the employ of the Convex Weaving Company? and, if yea, state in what capacity he was so employed.

A. I knew T. H. Müller; he had to make the machines.

14. Q. Did Müller have anything to do with the designing of the corsets or punching the cards, up to the time you left?

A. No; he had nothing to do with the designing of corsets nor with punching the cards as long as I was there.

15. Q. Who designed and prepared the cards under your direction whilst you were foreman of the weaving department?

A. The cards were prepared by a man who was brought up to that business. After the cards were prepared I made the pattern.

16. Q. What was the name of that man; and, if you know, where is he now?

A. His name was Gerster. He is dead.

17. Q. What do you mean by patterns?

A. The pattern is what is made from the design.

18. Q. Was what you call the pattern made before the card was punched or after?

A. After the cards.

19. Q. Who designed, whilst you were foreman, the form of the corsets that were to be woven?

A. We had some, and out of those we made what were wanted.

20. Q. Who designed or determined how the cards should be punched?

A. I told the man Gerster, and he made it.

21. Q. Before you left the Convex Weaving Company were any corsets woven in the Jacquard looms in imitation of fanding on the surface?

A. Yes; we made something on the pocket, but not many; only experimental.

22. Q. Look at the upper part of Exhibit No. 3, and state whether any corsets were woven in the Convex Weaving Company's establishment like this.

A. Yes.

26 23. Q. Look at the diamond-formed ornaments, and state whether corsets were woven there that had different kind of ornaments than the diamond-shaped.

A. Whilst I was there, not; this was made there, marked "A, B. T. V."

24. Q. State whether in the weaving of these ornaments, the pockets were thereby stopped off in the act of weaving.

A. No.

And being cross-examined by Mr. Witter, deposes and says:

25. X Q. Do you know how to punch cards from a drawing?

A. Yes; I understand it, but it is not my work.

26. X Q. What would you do if you wanted a pocket to be stopped off at a certain point in the corset?

(Objected to, as the witness has not been examined-in-chief as an expert.)

A. If the Jacquard was arranged for it, I would have it stopped off.

27. X Q. How would you arrange the Jacquard so as to stop off the pocket at any desired point? What would you do?

(Same objection.)

A. I could only do it by drawing in the cords.

28. X Q. Are not the cords caused to operate and not to operate by cards which have been previously punched?

(Objected to as ambiguous.)

A. That is so.

29. X Q. Then, if you wanted a pocket stopped at any particular point you would cause it to be so stopped by punching the cards conformably, would you not?

(Same objection as to question 26.)

27 A. No; the Jacquard must be made to it; the punching serves nothing; with the punching alone it cannot be done.

30. X Q. What is necessary to be done to the Jacquard in order to stop the pocket off at any particular point?

(Same objection.)

A. I have already told you; I cannot explain it better; the cords must be drawn in.

31. X Q. And if you wanted to stop one pocket at one point, and the next pocket at another point higher up, you would do it by making the cards and the cords accordingly, would you not?

(Same objection, and because the witness's testimony shows that he has had no knowledge or experience in weaving corsets with the pockets stopped off at different points predetermined by the Jacquard.)

A. I would not do it so; I would do it differently.

32. X Q. How would you do it?

(Same objection.)

A. That I cannot explain; I can only show it.

33. X Q. Where did you go when you left the Convex Weaving Company, and what did you do?

A. Patterson; silk-weaving.

34. X Q. What sort of goods?

A. Wide sashes.

35. X Q. Have you been in any other business since then; if so, where?

A. I have had no other occupation since then; since two years I have been sick, suffering from asthma.

36. X Q. What did you do, and where, before you went to the Convex Company?

A. I was in the New York Silk Manufactory, where I was foreman.

And being further examined by Mr. Keller, says:

37. Re-d. Q. Did you ever arrange a loom and Jacquard so as

28 to weave a corset with the pockets stopped off at different distances from the upper edges, in the operation of weaving?

(Objected to as not being pertinent to the cross-examination.)

A. No.

J. S. MANGOLD.

Sworn and subscribed to this 29th day of December, 1873.

E. G. THOMPSON, *Examiner.*

JOHN BAER, a witness produced on the part of the complainant, being duly sworn, in answer to interrogatories propounded by Mr. Keller, deposes and says:

1. Q. What is your name, age, residence, and occupation?

A. John Baer; forty-seven years of age. I reside 523 9th avenue; butter and cheese store.

2. Q. State whether you are acquainted with the art of weaving, and for how many years you have been engaged in that business, and in what capacities?

A. I understand weaving. I have been engaged in it thirty-five years, at times as weaver, at times as foreman.

3. Q. Were you ever employed by the Convex Weaving Company; and, if so, when did you begin and when did you leave off?

A. I was. I began in June, 1867, and left in 1869, I believe.

4. Q. Did you continue in the employ of that company till they stopped business?

A. Yes, sir.

5. Q. In what capacity were you first employed by that company, and what were your duties when first employed?

A. I wove corsets on the loom at first.

6. Q. Did you perform any other duty than that of weaving during the time that Mr. Mangold was foreman?

A. Yes, sir; I was weaver, and then I fixed the looms.

29 7. Q. Did you at any time, and, if so, when, become foreman of the convex-weaving department of that company?

A. When Mangold left I took his charge as foreman.

8. Q. How long did you continue foreman of the weaving department of that establishment?

Q. I was foreman there from 1st January, 1868, to April, 1869.

9. Q. What business were you next engaged in after leaving the employment of the Convex Weaving Company?

A. I went into the silk business, and weaved some fringes, trimmings, &c.

10. Q. Did you ever go into the employment of the plaintiff, Mr. Moritz Cohn; when first, if so, and in what capacity?

A. Yes; in 1870, I was foreman in corset-weaving.

11. Q. Can you fix the time when you first went into the employment of Mr. Cohn?

A. I was there from February till September.

12. Q. What did you do principally when you first went there?

A. I fixed the looms; I put up the looms, and put everything in running order.

13. Q. Where did the corset looms come from that Mr. Cohn had when you first went there?

A. From Convex Weaving Company, Melrose.

14. Q. Were the corsets woven there at Mr. Cohn's establishment, when you first went there, different from those of the Convex Weaving Company?

A. They were the same.

15. Q. When you first went into the employ of Mr. Cohn, had you occasion to examine the cards belonging to the Jacquard machines?

A. Yes.

16. Q. Were any of those cards so punched that the pockets of the corsets woven by them would be stopped off at the upper end at irregular distances from the selvedge by the act of weaving?

A. No, sir; they went through from one end to the other.

30 17. Q. Were you acquainted with Charles Gahren; and, if yea, state if at any time he was in the employ of the plaintiff, Mr. Cohn?

A. Yes; I know Charles Gahren; he was employed there before I was.

18. Q. In what capacity was he employed?

A. He helped in putting up the corset-looms and putting them in operation.

19. Q. Under whose direction?

A. Mr. Cohn.

20. Q. How many looms were in running order in the corset-rooms when you left in September, 1870?

A. Twenty-five.

21. Q. During the time that you were foreman of the weaving de-

partment of the Convex Weaving Company, were any corsets there woven in which the pockets were stopped off in the operation of weaving to determine how far the whalebone should be pushed toward the upper edge of the corset?

A. As I said before, we made the pocket from one end to the other first; afterwards, about in August, we commenced to make the corsets with stoppers. No; in the Convex Weaving Company they ran from end to end.

22. Q. When you first answered the last preceding question, did you understand it as referring to what was done at the Convex Weaving Company or at Cohn's establishment?

A. I understood it as referring to Cohn's establishment.

23. Q. If corsets had been woven at the Convex Weaving Co.'s works, while you were foreman of the weaving department, with the pockets at the upper end stopped off in the act of weaving, except at the selvedge, would you have known it?

A. I would have known it; nothing could be done without my order.

24. Q. Did you have anything to do with the cutting of the cards while you were in the employ of the Convex Weaving Co.?

A. No cards could be stamped or cut without my order.

31 25. Q. Do you know of any experiments which were made at the Convex Weaving Co. while you were there for the weaving of corsets to imitate, on the surface of the cloth, what is done by hand, and termed fanning?

A. Yes. We made the diamonds on it.

26. Q. In corsets so woven as referred to in the last question and your answer were the pockets stopped off in weaving; and, if not, by what means were they stopped off?

A. No. They were stopped off by stitching.

27. Q. How many looms were fitted to produce that result on the surface of the corset as imitation fanning or stitching—referring always to the Convex Weaving Co.'s establishment?

A. Four or five, about.

28. Q. Did they continue to make them in this way for any length of time?

A. Two or three months; I can't say exactly.

29. Q. Why did they give it up?

A. Because it was of no value, as one could see the whalebones at the spot where the diamond was.

30. Q. What was done with the cards used in making those corsets after the Convex Co. stopped using them?

A. We burnt them.

31. Q. When and from whom did you first hear of stopping off the pockets near the upper edge of the corsets in the act of weaving to dispense with the hand fanning or sewing?

A. In August, 1870, from Mr. Cohn.

32. Q. Did he ask you if you could make the cards so as to stop off the pockets in weaving instead of fanning or sewing, and what was your reply?

A. Yes. I said we could make them and could try it.

33. Q. Did you try, and how long were you engaged in the experiments, and what were the results?

A. I did try. About eight, fourteen days—I can't say exactly—and I succeeded.

34. Q. Up to the time you left Cohn's establishment had you suc-

ceeded in producing corsets, so stopped off, to your entire satisfaction—in getting the pockets stopped off just in the right places?

32 A. I was told it was right.

And being cross-examined by Mr. Witter deposes and says:

35. X Q. What were the right places that you refer to in your last answer?

A. At the places desired.

36. X Q. Did you not tell, within three or four months, Mr. Saatweber that while you were at work for the Convex Weaving Company you stopped off pockets of corsets in the weaving at different heights?

A. No. We never stopped off the whalebone in the Convex Weaving Company. I told him we had experimented in making other figures on the pockets.

37. X Q. Did you not at another time, and within three or four months, tell Mr. Saatweber, in company with Mr. Lyall, at your store in Ninth avenue, that while you were at work for the Convex Weaving Company you stopped off pockets of corsets in the weaving at different heights?

A. No; not the way I make them for Mr. Cohn. Just the same as I said to Mr. Saatweber. I did not know Mr. Lyall four months ago. He was at my store five or six weeks ago, about.

38. X Q. Did you not at this last interview tell these gentlemen that while you were in the employ of the Convex Weaving Company you stopped off the pockets of corsets at different heights, and that you changed the loom and produced this effect before Mr. Cohn knew anything about it, and that Mr. Cohn had no right to a patent for it?

A. No. It is all a humbug. They never talked to me about a patent.

39. X Q. Did you not tell, within three or four months, Mr. Gregersen that while you were at work for the Convex Weaving Company you stopped off pockets of corsets in the weaving at different heights?

A. No. Mr. Saatweber and Mr. Gregersen were at my store and asked me what I would do if it should come to a suit and I should be called. Saatweber told me that Mr. Müller and all the girls from

33 Melrose had said that the pockets were made so; and I said in reply, one and all had told what was not true.

40. X Q. Is it any more difficult to stop a pocket off in one place than in another?

A. It depends where one wants it stopped.

41. X Q. Where is it the most difficult to stop off the pocket?

A. It is the same all over—every warp.

42. X Q. Did you ever punch the cards for the Jacquard machine?

A. Yes; plenty.

43. X Q. Are you not able, by punching the cards properly, to begin a pocket, stop a pocket, or continue a pocket on any part of the fabric you please?

A. At that time not—only from warp to warp.

44. X Q. Question repeated.

A. If the cords of the Jacquard machine are properly put in the harness.

45. X Q. Who put the cords in the harness of the Jacquard machine, and who punched the cards for the first corset you say you made for Mr. Cohn, in which the pockets were stopped off at different lengths?

A. I put the cords in harness. Fred. Klumz punched the first card, who was the same man we had in the Convex Company.

46. X Q. When was that?

A. 1870, August.

47. X Q. Was that a good corset?
A. The first, not.
48. X Q. Why not?
A. Because each whalebone had not the proper distance from the end.
49. X Q. That is not all the trouble there was?
A. That was all.
50. X Q. Was there the same difficulty with others of the first ones?
A. We made it better from one to another; we had to try.
51. X Q. At how many different points did you stop off the pockets in the first corset?
A. As many points as there were whalebones in it.
34 52. X Q. And you put in as many whalebones as were desired, did you not?
A. Yes.

JOHN BAER.

Subscribed and sworn to before me this 29th day December, 1873.
E. G. THOMPSON, *Examiner.*

Examination adjourned till December 30, 1873, at 11 a. m.

BERNHARD T. VETTERLEIN, being duly sworn as an interpreter, deposes and says, in answer to questions propounded by Mr. Keller:

1. Q. What is your name, age, residence, and profession?
A. Bernhard T. Vetterlein. I am 33 years of age. I reside in Hudson City, New Jersey. I am a lawyer.
2. Q. Are you familiar with both the English and the German languages?
A. I am.
3. Q. Have you compared the two printed papers, one marked "Exhibit No. 143," in English, and the other similarly marked in German, and state whether the one in German is a correct translation of the one in English?
A. I have compared the two papers, and do find the one in German to be a correct translation of the one in English.

B. T. VETTERLEIN.

Sworn and subscribed this 29th day of December, 1873.
E. G. THOMPSON, *Examiner.*

35 NEW YORK, *December* 30, 1873—11 a. m.

Met pursuant to adjournment.
Counsel present as before.

LORENZ MITTER, a witness produced on the part of the complainant, being duly sworn, in answer to interrogatories propounded by Mr. Keller, says:

1. Q. What is your name, age, residence and occupation?
A. Lorenz Mitter. I am 47 years of age. I reside at 223 Thirty-fifth street, New York City. I am a weaver.
2. Q. Were you at any time in the employ of the Convex Weaving Company; if yea, when did you commence and when did you leave?
A. I was employed by the Convex Weaving Company from June, 1867, up to February, 1868.
3. Q. In what capacity were you so employed, and specify distinctly all the duties you were required to perform whilst in such employ?

A. I was employed in the finishing department. The corsets came from the loom, into my hands, and I gave them away to be cut; after being cut they came back to me; then I gave them for boning, after which they came back to me; then I gave them for fanning, and then for stitching, and then for cording, then for eyeletting, and then they were sent to be washed in the basement, and pressed, and afterwards they were returned to me, when I examined them, and then they were laced, measured, rolled up, and put in boxes.

4. Q. Was it as foreman or as an ordinary operative that you were employed in the finishing department?

A. As much as I know, I was appointed as foreman.

5. Q. Did your duties in that department, during the whole time that you were there employed, enable you to ascertain how the pockets for the bones were stopped off near the upper part of corsets? and, if so, state how they were stopped off.

A. My duties were of that nature that I must have known it, and therefore I am certain they were not stopped off, but were fanned.

36 6. Q. At any time, whilst you were employed, were corsets woven to imitate the imported foreign corsets at the place where the bones are usually stopped off near the upper edge of the corsets? and, if yea, state what it was.

A. Yes; it was a kind of fanning—it was only a pick of the filling; the fanning went over the whalebone.

7. Q. Examine the several corsets now put before you, and see whether you find on any of them anything that represents on the surface of the corset what you mean by your last answer, and point it out to the examiner.

A. It had a little resemblance to this—compl't's exhibit C; it was not regular. The fanning laid on the whalebones as in this. I cannot find anything in the others that had a resemblance.

7. State whether the corsets so woven had the pockets stopped off in the weaving, and, if not, how otherwise were they stopped off?

A. The corsets on which the fanning was woven in were not fanned; the bones were only sewed fast by hand. The whalebones went though and had to be sewed fast.

9. Q. Are you, or have you ever been, in the employ at the plaintiff, Moritz Cohn?

A. No.

And, being cross-examined by Mr. Witter, says:

10. X Q. What do you understand by stopping of the pockets?

A. Partly by hand—the whalebone is sewed fast; partly in the way as in Compl't's Exhibit No. 2, Cohn.

11. X Q. Look at Exhibit Barnes, J. G., jr., and say how far the pocket marked "P O" extends toward the top of the corset?

A. The pocket goes up to the top, and is stopped off by two picks of the filling at the point marked A.

12. X Q. Do you mean by two picks of the filling in the weaving?

A. Yes, sir; in the weaving.

13. X Q. If the fanning were not on that pocket, could you push the whalebone any farther than the point marked "A" without breaking the threads?

37 A. No.

14. X Q. Do you know how a pocket is caused to be stopped off in the weaving?

(Objected to, as the witness has not been examined-in-chief as to the

manner of effecting the stopping off by weaving, but merely as to the fact, whilst he was in the employ of the Convex Weaving Company, no corsets that came to the finishing department of which he had charge in which the pockets were stopped off in weaving, and that the witness was not produced as an expert in weaving.)

A. Oh, yes; I know.

15. X Q. Will you state where the pocket marked 1 is stopped off, and whether it is stopped off in the weaving or not; also the pocket marked 2?

A. They are stopped off in the weaving where I have made the ink-marks towards the middle of the corset.

16. X Q. Did you work for the United States Corset Co.; if so, how long?

A. Yes; an hour and a half.

17. X Q. You were then informed you were not wanted longer?

A. Yes; because he supposed I was useless.

18. X Q. Who supposed you were useless?

A. Mr. Saatweber.

19. X Q. What did you do after February, 1868, when you left the Convex Co.?

A. I came to Mr. Roth, in the corset finishing, as foreman.

20. X Q. Where was that, and how long did you stay there?

A. In New York; from February, 1868, to January, 1870.

And being further examined by Mr. Keller, says:

21. Re-d. Q. In what capacity was Saatweber in the United States Corset Co.

A. I heard he was foreman; I do not know.

38 22. Re-d. Q. For what work were you engaged at the U. S. Corset Co., and who engaged you?

A. The looms were not in motion; I was employed by Mr. Saatweber to level the eyes of the harness in the looms.

23. Re-d. Q. Had that ever been a part of your business in other establishments?

A. It was not my occupation; once I worked at it for one hour.

24. Re-d. Q. In what establishment, or for whom did Roth work?

A. Roth imported his corsets from Germany, and they were finished here.

LORENZ MITTER.

Subscribed and sworn to this 30th day of December, 1873.

E. G. THOMPSON,
Examiner.

LETITIA HOLLIDAY, a witness produced on the part of the complainant, being duly sworn, in answer to interrogatories propounded by Mr. Keller, says:

1. Q. What is your name and residence?

A. Letitia Holliday; I reside in New York.

2. Q. Were you ever in the employ of the Convex Weaving Company; and, if yea, when first, and how long did you continue in such employ, and in what capacity?

A. I went there in June, '68. I remained there up to the closing out of the business as forewoman.

3. Q. Had you an opportunity, in the discharge of your duty there, of ascertaining how the pockets of the corsets were closed, so as to de-

termine the distance the bones had to be inserted toward the upper end of the corsets?

A. It was my business to see that they were at the proper distance from the end of the corsets.

4. Q. State how they were stopped.

A. They were stopped by fanning the ends of the bones; the finer qualities were stopped by tacking before going into the laundry.

5. Q. During the time you were in the finishing department, were any corsets brought there, in which the corsets, near the upper end, had the pockets stopped off in weaving?

A. No, sir.

6. Q. If any such had been brought there, would you have known it?

A. I would.

7. Q. Did you know Mr. T. H. Müller whilst you were in the employ of the Convex Weaving Company?

A. I did.

8. Q. In what capacity was he there employed?

A. I understood he was there as an inspecting engineer.

9. Q. When the corsets came to your department, was any indication attached to them showing on what looms they had been woven? and, if so, state what that indication was.

A. There were printed cards attached to each dozen; they were then filled by the operators, in turns; each one wrote his or her name at the end on a line. So it was the duty of the weaver to put down the number of the loom on which they were woven, and his name.

10. Q. Did you, in the discharge of your duty, ever have occasion to report any defects in the pockets of the corsets brought to your department? If so, state what the defects were, and how you ascertained what the defect were.

A. I have frequently had to report that bones could not be inserted in the pockets on account of stitches through them. I would report that such a loom was weaving imperfectly; that some of the pockets were closed.

And being cross-examined by Mr. Witter, says:

11. X Q. You say, in answer to the 3d question, it was your business to see that the pockets were closed at the proper distance from the end of the corset. What was the proper distance from the end of the corset?

A. It may have been an inch, or three-quarters of an inch; the precise length was not specified. I was shown corsets when I went there. Sometimes, if a wrong bone was inserted it made a difference in the fanning, and I had to see that the proper distance was kept.

12. X Q. Did you see that the pockets were stopped off at the points required to make a good-shaped corset?

A. Shape of the corset was determined in the cutting, and the bones were cut with reference to the shape.

13. X Q. And then were the pockets stopped off with reference to the bones; is that what you mean?

A. Yes, sir.

14. X Q. If the bones in the corset had all run up to the same point, so as to be all of the same length, would that have made a corset that was good for anything?

A. I rather think not.

15. X Q. You never saw or heard of a corset such as that?

A. No, sir.

16. X Q. Do you think such a corset as that could be sold in the market, or worn?

A. No, sir.

17. X Q. At what point is it desirable that the bone pockets and bones should stop; which are required to be higher, those under the arm or those at the breast?

A. The back and front bones are required to be the higher, and those under the arm of course lower.

LETITIA HALLIDAY.

Subscribed and sworn to this 30th day of December, 1873.

E. G. THOMPSON, *Examiner.*

JOHN GRAHAM, a witness produced on the part of the complainant, being first duly sworn, in answer to interrogatories propounded by Mr. Keller, says:

1. Q. What is your name, age, residence, and occupation?

A. John Graham. I am 51 years of age. I reside at 354 West Thirty-third street. I am a manufacturer of small wares.

41 2. Q. Have you before been examined as a witness in this case on the part of the defendants?

A. Yes, sir.

3. Q. Look at Exhibit Barnes, J. G., jr., and point out, on the said exhibit, the stopping off of the bone pockets in the act of weaving in the corset, at different distances from the upper edge of the corset, which were woven in your establishment, as testified by you on your former examination on the part of the defendants.

A. I do so; I draw ink-lines indicating that, marked "B."

4. Q. Were the opposite ends of the pockets, which you have so marked on the exhibit, closed in the act of weaving?

A. No, sir.

Cross-examination waived.

JOHN GRAHAM.

Sworn and subscribed to this 30th day of December, 1873.

E. G. THOMPSON,
Examiner.

Counsel for defendants, by consent of counsel for complainant, here puts in evidence the Blue-Book specification of John Henry Johnson, dated 1854, No. 143, which is marked "Deft.'s Exhibit, Blue Book, E. G. T., exr.," the same having just been received from Landon.

Examination adjourned till December 31, 1873, at 11 o'clock a. m.

NEW YORK, *Dec.* 31, 1873—11 a. m.

Met pursuant to adjournment.

Present, counsel and parties as before.

JULIA SCHILLING, a witness produced on the part of the complainant, being first duly sworn, in answer to interrogatories propounded to her by Mr. Keller, says:

1. Q. What is your name and residence?

42 A. Julia Schilling. I reside in Morrisania.

2. Q. Were you ever in the employ of the Convex Weaving Company; and, if so, when did you begin and when did you stop?

A. I was. I began in January, 1868, and stopped in May, 1869.

3. Q. Did you continue there till the Convex Company stopped manufacturing corsets?

A. Yes, sir.

4. Q. In what department were you so employed?

A. I was fanning.

5. Q. In fanning, how did you determine where the upper end of the bones should be stopped in the pockets?

A. Do you mean at what end?

6. Q. I mean towards the upper end of the corset.

A. Yes, sir; towards the upper end.

7. Q. How did you stop the pockets to prevent the bones from going nearer the upper edge of the corset than was required?

A. We stopped it by sewing stitches.

8. Q. When the corsets were brought into the finishing-room state how far the pockets extended.

A. All those that went through my hands were open through.

9. Q. Did you see any corsets there in which the pockets were closed in weaving at such distance from the upper edge of the corsets as you generally stop them by stitching?

A. No, sir; I did not.

10. Q. Are you in the employ of Mr. Cohn, the plaintiff in this case? If so, how long have you been in his employ?

A. Since March, 1871.

11. Q. When you first went there to Mr. Cohn's did you notice how the pockets were closed near the upper end of the corsets?

A. Yes, sir.

12. Q. State how.

A. I thought they were woven, what I saw.

13. Q. Had you ever before seen corsets in which the pockets were closed by the weaving?

43 A. No, sir.

14. Q. When you worked at fanning for the Convex Weaving Company, what were you paid for the 16-bone corsets and how much for the 24-bone corsets?

A. We got 30 cents a dozen for the 16-bone and $2.25 for the 24-bone. I made a mistake; we had no 24-bone—the $2.25 was for 100-bone.

(Cross-examination waived.)

JULIA SCHILLING.

Subscribed and sworn to this 31st day of Dec., 1873.

E. G. THOMPSON,
Examiner.

MARY TIENKEN, a witness produced on the part of the complainant, being first duly sworn, in answer to interrogatories propounded by Mr. Keller, deposes and says:

1. Q. What is your name and residence?

A. Mary Tienken; I reside in Melrose.

2. Q. Were you ever in the employ of the Convex Weaving Co.; and, if so, during what time?

A. From 1868 to 1869, when it closed.

3. Q. What time in 1868 did you begin?

A. In March.

4. Q. At what were you there employed?

A. At boning and fanning.

5. Q. When the corsets came to your hands, had they been cut into shape at the upper and lower edges?

A. Yes, sir.

6. Q. When brought to you to be boned and fanned, state in what condition the pockets were?

A. They were open at both ends.

7. Q. What was the object of fanning?

A. To keep the bones in place from slipping up or down.

8. Q. During the whole time that you worked there did you see any corsets in which the pockets had been closed near the upper edge by weaving, to avoid the necessity of stopping the upper end of the bone at the right place by fanning or stitching?

44 A. No, sir; not while I was there.

9. Q. With the fine corsets, before they were sent to the laundry, were the pockets stopped off; and, if so, how?

A. They were tacked.

10. Q. What was done to them after they came back from the laundry?

A. They were fanned with silk; then they were finished.

11. Q. What did you use in determining where the fanning should be placed, relatively to the tacking which was done before taking them to the laundry?

A. We used a piece of card to keep them even to fan.

12. Q. What price was paid you for fanning the 16-bone corsets per dozen?

A. I got 33 cents a dozen down to 30 cents; when we left we got 30 cents.

13. Q. What were you paid per dozen for tacking and fanning the fine corsets?

A. I never done the tacking; I only did the fanning; we got $2 a dozen for fanning the fine corsets.

14. Q. Are you in the employ of Mr. Cohn, the plaintiff in this suit; and, if so, when did you first go into his employ?

A. I went there in June, 1870.

15. Q. When and where did you first see a corset stopped off in weaving, so as to dispense with the fanning or tacking to hold the upper end of the bones in place?

(Objected to as leading, and as assuming that corsets have the pockets stopped off, so as to dispense with the fanning or tacking.)

A. At Mr. Cohn's was the first place, when I came there.

And, being cross-examined by Mr. Witter, says:

16. X Q. How old are you?

A. I am twenty.

17. X Q. How many girls were employed in all by the Convex Weaving Company, when you were there, as near as you can judge?

45 A. I think about 100 girls, altogether.

And, being further examined by Mr. Keller, says:

18. Re-d. Q. Were they all engaged in fanning and boning the corsets; and, if not, about how many were so employed?

A. Not all; some at cording, stitching; about twenty fanning, and about five or six boning.

MARY TIENKEN.

Sworn and subscribed to this 31st day of Dec., 1873.

E. G. THOMPSON,
Examiner.

ANNA ANTHONY, a witness produced on the part of the complainant, being first duly sworn, in answer to interrogatories propounded by Mr. Keller, deposes and says:

1. Q. What is your name and residence?

A. Anna Anthony. I reside at Melrose.

2. Q. Were you ever in the employ of the Convex Weaving Company; and, if so, how early did you begin, and when did you stop?

A. I went there in 1867, and stopped in 1869.

3. Q. What time in '69?

A. Two weeks before it was closed.

4. Q. State, as near as you can, in what portion of 1867 you commenced.

A. In the fall.

5. Q. State at what you worked while you were so employed.

A. I was at boning, and lacing, and at fanning; most of the time I was at fanning.

6. Q. In boning, state fully how you inserted the bones in the pockets; how you generally did it, and how occasionally.

A. I put them in at the bottom, and sometimes at the top, but generally I put them in at the bottom.

7. Q. What was the object in fanning?

A. To keep the bones in the right place.

46 8. Q. During the time that you were there employed, did you ever see a corset that had the pockets near the upper edge of the corset closed in weaving, so as to avoid the necessity of stopping the upper end of the bone by fanning or tacking?

(Objected to as leading, and as assuming that corsets have the pockets stopped off so as to dispense with the fanning or tacking.)

A. No, sir; they were always open top and bottom.

9. Q. Are you in the employ of Mr. Cohn, the plaintiff; and, if yea, when first?

A. Yes, sir; since 1870.

10. Q. What month in 1870?

A. December.

11. Q. When and where first did you see a corset in which the pockets were stopped off in weaving, so as to determine how far from the upper edge the bone should be stopped?

(Objected to as leading.)

A. When I first came to Mr. Cohn's.

And, being cross-examined by Mr. Witter, says:

12. X Q. What is the object of the tacking, if you know?

A. To keep the bone in the right place.

13. X Q. After the pocket is tacked, it is then in condition to stop the bone from going beyond the tacking?

A. Yes, sir.

14. X Q. Is not the fanning put on for ornament, to make it look pretty?

A. Put on to keep the bone in its right place.

15. X Q. You have just said that the tacking did that, have you not?

A. Yes, sir, I said so; but the tacking and fanning is all the same—for the same use.

16. X Q. Which is done first—the fanning or tacking?

A. Tacking.

17. X Q. Are they done with the same kind of thread always?

47 A. The fanning we made with silk; the tacking with common thread.

18. X Q. You don't think the fanning was put on for the purpose of ornament, do you?

A. Not on the common work.

19. X Q. But on the fine work it was?

A. They were tacked first on the fine work; but I think the fanning was to keep the bones in the right place anyhow.

20. X Q. So you do not feel very sure on this point?

A. I feel very sure that the tacking was done to keep the bones in the right place.

21. X Q. You have said that you sometimes inserted bones from the top of the corset, while with the Convex Weaving Co.; how far down did they extend toward the bottom of the corset?

A. I could put them all the way through.

22. X Q. How many girls were there employed by the Convex Weaving Company, while you were there, as near as you can tell?

A. About forty or fifty, as near as I can think.

And, on being further examined by Mr. Keller, says:

23. Re-d. Q. On what quality of corsets was the tacking done?

A. On the fine work.

24. Re-d. Q. Is that before or after the fanning?

A. Before the fanning.

And, being further cross-examined by Mr. Witter, says:

25. Re-X Q. Do you mean that the common goods were fanned and not tacked or tacked and not fanned?

A. They were fanned and not tacked.

26. Re-X Q. The fanning, in that case, accomplished the object of tacking, did it not, and served as an ornament beside?

A. It is the same as if it would have been tacked.

27. Re-X Q. Then why did you not call it tacking?

A. Because it was not the same kind of sewing.

48 28. Re-X Q. It is made a different kind of sewing, for *for* the purpose of ornament, is it not?

A. I don't know, sir.

ANNA ANTHONY.

Subscribed and sworn to this 31st day of Dec., 1873.

E. G. THOMPSON,
Examiner.

JOHANNA TIENKEN, a witness produced on the part of the complainant, being first duly sworn, in answer to interrogatories propounded by Mr. Keller, says:

1. Q. What is your name and residence?

A. Johanna Tienken. I reside in Mott Haven.

2. Q. Were you ever in the employ of the Convex Weaving Company? If so, state when you commenced and when you stopped.

A. I was. I commenced in 1868; I stopped in 1869.

3. Q. What branch of the work were you engaged in?

A. I was a week at fanning and then I was at cording.

4. Q. Did the business you were working on when cording enable you to state how the upper ends of the bones were stopped in the pockets? and, if yea, state how.

A. They were left open the same as the bottoms were.

5. Q. Were they left open after the corsets were completed—finished?

A. The bones had to be fanned at each end.

6. Q. Which was done first, the fanning or cording?

A. The fanning was generally done first, but when we were pressed, the cording was sometimes done first and then the fanning.

7. Q. When corsets came to you to be corded that had not been fanned, could you tell, on examining them, whether the pockets were stopped or open all the way?

A. Yes, sir; the bones sometimes stuck out at the top, and we used sometimes to cut them off instead of pushing them down in their right places.

49 8. Q. During any portion of the time while you were working for the Convex Weaving Co., did you see any corsets in which the bone pockets were closed near the upper end in weaving?

A. No, sir.

9. Q. When first, and where, did you see corsets in which the pockets were so stopped off by weaving?

A. I saw them at Mr. Cohn's; I am not exactly sure when; somewhere around August or September, 1870.

10. Q. Are you in the employ of Mr. Cohn, the plaintiff; if so, when first?

A. I entered his employ in June, 1870.

And, being cross-examined by Mr. Witter, says:

11. X Q. What do you mean by cording?

A. Putting a cord around the edge, top, and bottom binding.

12. X Q. How many corsets do you suppose you corded while you worked for the Convex Weaving Company. I mean, give a rough estimate. I do not ask for the exact number—say how many a week or month?

A. Well, at first I did four dozen a day; afterwards six dozen a day. I can't say exactly.

13. X Q. Did you examine every pocket of all these corsets to see how they were stopped off?

A. I did not examine them; but generally when they were not fanned the bones stuck out at the upper end sometimes; sometimes, instead of pushing them down we cut them off, because it hindered us from cording.

14. X Q. Is that the only way you had of telling whether the pockets were stopped off or not? If you had any other way, tell what that was.

A. When I first fanned them I remember we used to fan them first at the top to put them in the right places.

15. X Q. Is that all the answer you have to cross-question 14?

A. That is all I can remember just now.

16. X Q. Can you swear that some of the pockets in some of the corsets which you corded may not have had some of the pockets stopped off in the weaving?

A. I guess I am. I have never seen any.

50 17. X Q. Suppose I stop the pockets of a corset off in the weaving, and then fan the pockets at the points where they are stopped off in the weaving, can you tell, without pretty careful examination, whether they have been stopped off by the weaving; if so, how?

A. If I would just handle or look at it I could tell.

18. X Q. Could you tell without pinching the pockets apart, or some such way as that?

A. I think the pocket generally shows of itself that it is open; the end of it generally lays apart.

19. X Q. You mean without handling it or touching it, do you?

A. Yes, sir.

20. X Q. Did you ever see the piece of material I have in my hand before?

A. I don't remember seeing it; it has not been in my hands.

21. X Q. I mean have you ever seen it before you came here to-day?

A. I have not noticed it.

22. X Q. Will you tell me, without handling it, where the pockets in this piece of goods are stopped in the weaving at the end marked "A?"

(Objected to, as the exhibit referred to in the question is not a corset, or a corset-blank—that is, as corsets come from the loom before being finished.)

A. I should think where I have drawn the ink lines on the fabric, (which fabric is marked "Complainant's Exhibit No. 3,") the other pockets being the same as these three, which the witness marks with the initials "J. T."

And, being further examined by Mr. Keller, says:

23. Re-d. Q. While you were in the employ of the Convex Weaving Company, did you hear any one say that any of the corsets there woven had the pockets stopped off in weaving?

A. No, sir.

JOHANNA TIENKEN.

Sworn and subscribed to this 31st day of December, 1873.

E. G. THOMPSON, *Examiner.*

51 KATIE BERNER, a witness produced on the part of the complainant, being first duly sworn, in answer to interrogatories propounded by Mr. Keller, says:

1. Q. What is your name and residence?

A. Katie Berner. I reside at Melrose.

2. Q. Were you ever in the employ of the Convex Weaving Company, and, if so, when first, and when did you leave?

A. I was; in 1867, in the latter part of October or November. I left there in the spring of 1869.

3. Q. Did you leave before or at the time the company stopped working?

A. At the time they stopped.

4. Q. State what work you did on corsets while you were in the employ of that company.

A. When I first went there it was a fanning for six weeks, and afterwards at cording.

5. Q. What was the fanning done on corsets for?

A. To keep the bones from slipping up and down; to keep them in the right place.

6. Q. When engaged at cording corsets, did that enable you to ascertain whether the pockets were stopped off at the upper end of the corset?

A. They were not stopped off.

7. Q. Which was done first, cording or stopping off corsets?

A. Stopping off, or fanning, what I call it.

8. Q. Were the corsets, when they came to you to be corded, cut into shape at the upper or lower edges?

A. Yes, sir.

9. Q. If the pockets had been stopped off in weaving, would you have known it when engaged in cording?

A. Yes, sir.

10. Q. Are you in the employ of Mr. Cohn, the complainant in this suit; and, if so, when did you first go there?

A. I am, since last March.

11. Q. When engaged in cording corsets at the Convex Weaving Company, were the bones inserted in the pockets when they came to you to be corded?

A. Yes, sir.

52 12. Q. Did you notice whether they were in the right places with reference to the upper edge of the corset?

A. When they were fanned they were in their right places.

13. Q. When they had not been fanned before coming to be corded how was it?

A. The bones would very often come through at the top.

14. Q. When and where did you first see a corset in which the pockets near the upper edges were stopped off by the weaving?

A. The first one I saw was at Mr. Cohn's building; and I was very much surprised.

And being cross-examined by Mr. Witter, of counsel with defendants, says:

15. X Q. Where is the fanning when it is in the right place? Is it where it is desired to stop the pockets?

A. Yes; to keep the bones tight.

16. X Q. You say that the bones stuck up through the top sometimes and that was the way you know the pockets were not stopped off in weaving. When they came to you without being fanned, were the bones any more likely to stick up through the top than they were through the bottom; and, if so, why?

A. They would stick through either side, because they were open at the bottom as well as at the top.

17. X Q. Please tell me your age?

A. I am twenty-two years of age.

18. X Q. How many dozen corsets a day did you cord when you were working for the Convex Weaving Company?

A. From six to seven dozen.

KITTY BERNER.

Subscribed and sworn to this 31st day of December, 1873.

E. G. THOMPSON,
Examiner.

Adjourned to January 2, 1874, at 11 a. m.

53 NEW YORK, *January* 2, 1874, *at* 11 *a. m.*

Present: Counsel and parties as before.

Met pursuant to adjournment.

GUSTAV ZORN, a witness produced on the part of the complainant, being first duly sworn, deposes and says, in answer to interrogatories propounded by Mr. Keller:

1. Q. What is your name, age, residence, and occupation?

A. Gustav Zorn; I am 37 years of age; I reside at Union Hill, N. J.; I am a designer.

2. Q. Are you acquainted with the operations of the Jacquard loom, and the adaptation of such machinery for designs for fabrics? and, if yea, state the extent of your experience.

A. I understand the operation and the adaptation. I have had an experience of twenty-four years.

3. Q. Have you any, and, if yea, what, experience in the weaving of corsets by the Jacquard loom?

A. I have experience in all particulars, as designer and card-maker, and for cording, and in general, to put the loom in motion.

4. Q. Are you in the employ of Mr. Cohn, the plaintiff in this suit? and, if yea, state since when, and in what capacity.

A. I am employed by Mr. Cohn, since January 20th, 1871, as designer and card-maker, and I have to designate how to arrange the cords.

5. Q. When you first went into the employ of Mr. Cohn, how many Jacquard looms for weaving corsets did you find there, and how many of them were weaving corsets with the bone pockets stopped off near the upper edge of the corset in weaving?

A. I found twenty-five looms for corset-weaving, six of which were weaving corsets with the bone pockets stopped off.

6. Q. When you first went there did you have a conversation with Mr. Cohn as to the manner in which the pockets in the corsets are stopped off in the looms then in operation, and whether he was satisfied or dissatisfied with the places where the pockets were stopped off? State particularly what he said on that subject.

54 A. Yes; he was dissatisfied, because the whalebones were not in their proper places, and asked me if I could make a corset in accordance with his direction, so that the bones would be stopped off in the right places, which he would designate to me.

7. Q. State particularly what you mean by placing the bones in the right places; what part of the bones?

A. According to the shape; the upper part.

8. Q. Did Mr. Cohn point out to you where he wanted the upper end of the bones to be stopped off?

A. Yes.

9. Q. Did you examine the looms to ascertain whether you could make a design in which the pockets could be stopped off where he wanted, as the cords of the looms were then arranged? and state fully what was the result of your examination.

(Objected to as leading.)

A. I examined the loom, and found that on each hook of the Jacquard four cords were fastened, which, from the first to thirteenth, from thirteenth to twenty-fifth, and from twenty-fifth to thirty-seventh, were corded in the harness-board; I could not make a design.

10. Q. State why you could not make a design to stop off the pockets in the places designated by Mr. Cohn with a loom corded as you have stated in your last answer.

(Objected to as assuming what the witness could not do; also as leading.)

A. The place designated came in the centre of a warp; I was not for that reason able; because the cords from first to thirteenth, from thirteenth to twenty-fifth, and from twenty-fifth to thirty-seventh, repeated four times.

11. Q. In those Jacquard looms how many threads were there in each warp-beam?

A. Forty-eight.

12. Q. How many needles in each row were there?

A. Twelve.

55 13. Q. How many cords for each needle in a row?

A. Four.

14. Q. Have you made a drawing representing the warps in the six looms which you there found mounted for stopping off the pockets in

corsets, and showing the manner of the connection of the cords with the needles and the warps? And, if yea, produce it that it may be made an exhibit in this case.

A. I made one later. Yes, I have it here, and produce it.

(Marked "Complainant's Exhibit, Zorn No. 1, E. G. T., ex'r.")

15. Q. Point out on the said Ex. Zorn No. 1 within what portion of the width of the warp the stopping off of the upper edge of the pocket in the places pointed out by Mr. Cohn, in his conversation with you, would occur.

A. At the places marked "A."

16. Q. State whether you at any time succeeded in producing corsets on Jacquard looms with the pockets stopped off near the upper edge of the corset, as Mr. Cohn had pointed out to you.

(Objected to as leading.)

A. Yes.

17. Q. State how long a time it required before you produced a corset with the pockets to suit him.

A. It took two or three weeks.

18. Q. What alterations did you have to make before you produced the first one with the pockets properly stopped off?

(Objected to as leading.)

A. The cords had to be taken out of the harness and arranged differently, so that when the design was made the points which Mr. Cohn had pointed out came at the right places.

19. Q. State whether after you had re-arranged the cords anything was required to be done to the cards; if so, what?

56 A. I had to make new cards.

20. Q. How many different sizes of corsets are woven in Mr. Cohn's establishment?

A. Twelve.

21. Q. Was the arrangement of needles and cards, which you adopted for the first corset, first produced in accordance with Mr. Cohn's wishes, suitable for all the other sizes?

A. No.

22. Q. How long was it, after the first was properly arranged, before you completed the arrangement of all the other looms?

A. It took to November, 1872, for all.

23. Q. About how much was the expense in money for the re-arrangement of all the looms, to produce corsets with the bone pockets properly stopped off at the upper edge of the corsets?

A. $2,000 for the designs and cards.

24. Q. Did that include your wages, or exclusive of your wages?

A. Inclusive.

25. Q. Were any corsets spoiled in consequence of the said changes made in the looms?

A. No.

26. Q. Look at complainant's Exhibit No. 143, which is a translation in German of defendant's Exhibit Johnson, and state whether you have examined it, and understand what is therein described.

A. Yes; and I understand it.

27. Q. State whether a corset can be woven with the bone pockets all stopped off at the required distances from the upper edge of the corset by what is described therein.

A. No.

28. Q. State why.

A. Herein there are two Jacquards in the loom, of which one has for

its object the form or contour of the corset, and the other the formation of the double portion of the whalebone's pockets. The one Jacquard forms the shape and the other the stopping off of the pockets, which it is not possible to be done.

57 And being cross-examined by Mr. Witter, of counsel with defendant, says:

29. X Q. What are the proper places where it is required to stop off the pockets in corsets such as Mr. Cohn makes now; I mean how near the top edge of the corset is it required to stop off the pockets?

A. At different distances.

30. X Q. So as to make a good shape; is that what you mean?

A. Yes.

31. X Q. Will you give what you consider to be good reasons, if you have any, why two or more Jacquards may not be used in the same loom, each doing its own part of the work?

(Objected to, as the question assumes that the witness has testified that two Jacquards cannot be used in connection with the one loom, each doing its own part of the work.)

A. The first cord in the first machine must be connected at the same time on the first cord of the second machine, on the same warp thread, and thereby it is not possible to accomplish that.

32. X Q. Is that as intelligible a reason as you can offer?

A. Thereby when the first machine works, it takes at the same time the same cord upwards, and thereby arises a bad shade, so that the shuttle cannot get through.

33. X Q. When you have been stopping off a pocket at one point by the loom, and you want to stop it off higher up, what do you do?

A. I must make another card.

34. X Q. When did you first work upon or learn anything about a Jacquard machine?

A. I learnt it about 24 years ago; worked 23 years ago in Germany.

35. X Q. Did you know how to adapt the cards to the work then?

A. I had to learn it; it took me about two years.

58 36. X Q. You first determine where you want the pockets stopped off, and then fix your cards accordingly, don't you?

A. Yes; first the design and then the cards.

37. X Q. Are you familiar with the kinds of corsets in which the pockets are stopped off by sewing?

A. Yes.

38. X Q. How long have you been so, and at what points were they thus stopped off by the sewing?

A. As long as I have been in the business; at different points on the upper edge.

39. X Q. Where the pockets are stopped off in the weaving, are there the same number of filling threads and warp threads, both where the pocket exists and beyond where the pocket stops, or not?

A. Yes.

40. X Q. And the pocket is stopped off by an interlocking of the warp and filling threads, is it not?

A. Yes.

41. X Q. And you could stop the pocket off at any other required point by causing this interlocking or interweaving, could you not?

A. Yes.

42. X Q. And this interlocking or interweaving you produce at any given point by changing the cards?

A. Certainly, I must change the cards.

43. X Q. Who had your place at Mr. Cohn's before you?
A. That I do not know for certain.
44. X Q. Who showed you first how to make a design for a corset?
A. No one showed me, because there was no one who understood it.
45. X Q. So you did it yourself, did you?
A. Yes.
46. X Q. What corsets do you refer to?
A. Sixteen-bone corsets.
47. X Q. Did they have the pockets stopped off in the weaving, at different distances from the upper edge of the corset?
A. Do you mean when I came there?
48. X Q. I mean any of them, at any time.
59 A. When I made them, yes.
49. X Q. When was that, first?
A. I cannot say exactly; perhaps eighteen months ago.
50. X Q. You can make a double cloth or a single cloth in a fabric, by the use of a Jacquard, wherever and whenever you wish, can you not?
A. Yes; the way the stuff runs, and in either direction.

And, being further examined by Mr. Keller, says:

51. Re-d. Q. How long after you first went into the employ of Mr. Cohn did you see corsets there woven, in which the pockets had been stopped off at near the upper edge by weaving—I don't mean stopped off at the desired places, but stopped off at some distance from the upper edge?
(Objected to as leading, and that the question is not confined to the matters touched upon in the cross-examination.)
A. It was in the beginning—on the first day; they were not to be used, because the design was not made right.
52. Re-d. Q. Are you acquainted with Mr. Sattweber, here present; and, if yes, how long have you known him?
A. Yes. I know him directly since the first day I entered the employ of Mr. Cohn; I have known of him a very long time.
53. Re-d. Q. Was he employed at Mr. Cohn's establishment whilst you were there; and, if so, in what capacity?
A. Yes; as loom-fixer.
54. Re-d. Q. When you first knew him there, was he acquainted with the art of designing corsets, and mounting Jacquard looms for weaving them?
A. No; as much as I know, he learnt the mounting there.
55. Re-d. Q. When a loom has been mounted and the cards cut
60 for stopping the pockets off at certain distances from the upper edge of the corset, and you want to weave corsets with pockets stopped off at other distances, is anything required to be done, besides changing the cards; and, if so, what?
A. I must make a new design and a new card.
56. Re-d. Q. Will that alone produce a corset with the pockets closed at different distances?
A. I must make another arrangement of cords.

G. ZORN.

Subscribed and sworn to this 3d day of January, 1874.

E. G. THOMPSON,
Examiner.

EMILIA HEBERLIN, a witness produced on the part of the complain-

ant, being first duly sworn, in answer to interrogatories propounded by Mr. Keller, says:

1. Q. What is your name and residence?

A. Emilia Heberlin. I live at Mott Haven, New York.

2. Q. Were you ever in the employ of the Convex Weaving Company; and, if so, in what capacity and during what length of time were you so engaged?

A. I was. I was weaving at first, and then cutting or shaping the corsets. I was there from 1867, at the commencement of the winter, till the business stopped.

3. Q. By cutting the corsets you mean cutting the cloth to the right shape for the upper and lower edge of the corset, do you not?

A. I do.

4. Q. In cutting them, did that give you an opportunity of ascertaining whether the pockets for the whalebones were stopped off in weaving, or whether they were open all the way though after the selvedges were cut off?

A. They were opened all the way through.

61 5. Q. Did you at any time while you were there see a corset in which the pockets were stopped off in weaving near the upper edge of the corset?

A. No, sir.

Cross-examination waived.

EMILIA HEBERLIN.

Subscribed and sworn to the 2d day of January, 1874.

E. G. THOMPSON,
Examiner.

Adjourned to January 3, 1874, at 11 a. m.

NEW YORK, *January 3d*, 1874—11 a. m.

Met pursuant to adjournment.

Present, counsel and parties as before.

CHARLES GAHREN, a witness produced on the part of the complainant, being first duly sworn, in answer to interrogatories, propounded by Mr. Keller, of counsel with complainant, deposes and says:

1. Q. What is your name, age, residence, and occupation?

A. Charles Gahren; I am thirty-seven years of age; 316 Seventh avenue; engineer, mechanical.

2. Q. Were you ever in the employ of the Convex Weaving Co.; and, if so, when did you begin, and when did you leave?

A. I was employed by the Convex Weaving Co. from January, 1867, till the middle of April, 1869.

3. Q. In what capacity were you there employed?

A. I was engaged to set up looms and machinery to manufacture corsets.

4. Q. State whether your duties there during the whole time you were in the employ of that company enabled you to know how the bone pockets of the corsets there woven were stopped off to determine the position of the upper ends of the bones.

62 A. I had charge, as a machinist, to set up and keep in working order the machinery which was used to manufacture corsets in the different departments. The corsets I saw woven there had the whalebone pockets open from selvedge to selvedge.

(The last part of the answer objected to by Mr. Witter, as not called

for by the question, and as testimony voluntarily given by the witness.)

5. Q. Did you have occasion to visit the different departments, where corsets were worked upon after leaving the looms? and, if so, state whether such visitation enabled you to judge the manner in which the pockets were closed.

A. If anything was out of order on the machinery used in the different departments, I was called to fix it; I did see, by the cutting, boning, and fanning of the corsets, that the pockets were open, and the whalebones had to be held by fanning or stitching.

(Same objection.)

6. Q. Have you any recollection of any attempt being made in the establishment of the Convex Weaving Co. to weave corsets with an imitation fanning? and, if yea, state when that was done, how it was done, and state whether or not such imitation did or did not stop off the pockets.

A. I did see some corsets woven, which had a diamond-like figure on the upper face of the whalebone pocket. It was done when Mangold was foreman there, in 1868; it was done in weaving. It did not stop off the pockets; they were open from selvedge to selvedge.

7. Q. What was Mangold's given name, or what position he occupied in the factory at that time?

A. He was foreman of the weaving department; Jacob, I believe.

8. Q. Were you acquainted with T. H. Müller when he was employed by the Convex Weaving Co.? and, if yea, state in what capacity
63 he was so employed, how long he was there employed, and what he did in such employment.

A. I was to make drawings for all the new machinery which they built, and experiment with this machinery, which was used in manufacturing corsets; he was there when I came in 1867, and went to Paris on 9th February, 1867, and came back in the middle part of May of the same year, as near as I can state it; then he stopped till fall, 1868; he went then to the city of New York to set up a draughting office and came back to the works in fall, 1869, as his permanent place, until it was sold.

9. Q. How many looms, if any, had been put up when he left for Paris, and how many were put up or in progress of being put up when he returned, and under whose direction were they put up or being put up?

A. There was nothing done to the looms when he left for Paris, but the putting up of one frame; when he came back from Paris, we had four of them running—five more ready for the warps to be put in; twelve more the frames put up, and being worked upon to get them to run, in course of construction—under Mangold's direction as a weaver and my direction as a machinist.

10. Q. After Müller came back from Paris, and up to the time he stopped in fall of 1868, state what he was engaged in.

A. He tried to build machinery to starch and dry the cotton before it went on the warp; but this was given up as a failure. He also experimented to get up a new kind of busts—the most of them were broken up afterward; he also experimented to starch corsets and to prevent the discoloration of them by busting, and then he went away in fall, 1868.

11. Q. Explain what you mean by busting corsets.

A. They were starched and put on to a frame or vessel heated by steam, which are meant to have the shape of a woman, to be dried on them.

12. Q. Are you in the employ of plaintiff, Mr. Cohn, and, if yea, when

first and how long were you in his employ, and in what capacity or capacities?

A. I am; from February, 1870, till November, 1870; then I
64 went away till June, 1871; then I came back and have remained there ever since; when I first went there I had to receive the machinery which was bought by Mr. Cohn from the Convex Weaving Company, and had to put all that up and set it in running order; I am there now to have charge and to run the engines and boilers, look after the shafting, pipes through the building, and what little work is going on in the machine-shop.

13. Q. When you put up the looms at Mr. Cohn's, were you assisted by any one; and, if so, by whom?

A. I was assisted by Mr. Baer—he being a practical weaver and loom-fixer—with whom, together, I was putting up all the looms.

14. Q. When the looms were brought to Mr. Cohn's place from the Convex Weaving Company, state whether the cards for the Jacquards came with them, and if so, whether each loom had one or more sets of cards.

A. I received cards for the Jacquards—how many I could not state; I can't state whether one or more sets.

15. Q. Were any of the sets of cards which came from the Convex Weaving Company to Mr. Cohn, so punched as to stop off the bone pockets near the upper edge of the corsets in the act of weaving?

(Objected to, as the witness has not been shown to be qualified to answer the question.)

A. I had never anything to do with the cards, and could not state how they were.

16. Q. Was Mr. Müller, at any time, in the employ of Mr. Cohn; and, if yea, during what time?

A. He came to 26th street, Mr. Cohn's factory, the latter part of February, 1870, and stopped there till April, 1870.

17. Q. What did he do during the time he was in the employ of Mr. Cohn?

A. He was putting up the tools in the machine-shop, which Mr. Cohn bought from the Convex Weaving Company; he also made some drawings for strengthening the floor, where the looms had to be put up; he also made a drawing for an exterior communication between the two top floors of Mr. Cohn's building.

65 18. Q. While in the employ of Mr. Cohn, did Müller have anything to do with putting up the looms or the Jacquards, or in making designs for corsets?

A. Müller never laid a hand on one of the Jacquards, and had nothing to do whatever with the putting up of these looms, nor did he make any designs for corsets.

19. Q. After you had got through with putting up the looms and starting them in working order, state whether you had anything to do with re-arranging the machinery in another part of the establishment of Mr. Cohn, and state what that was, and during what time you were so engaged.

A. I commenced in September, 1870, to take the busts from the third floor of the building to the first floor, and I also was re-arranging the laundry machinery and putting up a new elevator, which took till the middle of November, 1870, when I left Mr. Cohn.

20. Q. What you did during the time specified in the last answer, did it in any manner interfere with the work in the finishing department? and, if so, state what effect it had.

A. The re-arranging of the laundry machinery did stop the finishing of the corsets for about two months.

21. Q. Have you made any inventions connected with the weaving of corsets? and, if yea, state generally the purpose of such improvements and what has been done with them.

A. I have invented a "take-up motion;" it is for the purpose to hold and take up the cloth on a corset-loom. This was patented, and is in successful operation now.

And, being cross-examined by Mr. Witter, says:

22. X Q. You have a pretty high opinion of Mr. Müller's ability in whatever he takes hold of, have you not?

(Objected to as immaterial to the issue.)

A. He is a very good draughtsman; he can make a drawing as quickly as anybody I ever saw yet, if a plan is laid out to him.

23. X Q. That is not all you think he can do, is it?

66 A. He is also a marine engineer.

24. X Q. He does not know much about looms and loom machinery, does he?

A. No; he does not.

25. X Q. You did not know that he was the general superintendent of the mechanical department of the Convex Weaving Co. during the time he was there, did you?

A. As I said before, he made all the drawings of this machinery after the invention of it was made by somebody else.

26. X Q. Did you hold a sufficiently important position to enable you to know why Mr. Müller went to France?

(Objected to as immaterial to the issue.)

A. All I know of that is, that he went there for the purpose of putting up one loom they had built at the Convex Weaving Co., of Breitenstein's patent, and he had a weaver along with him, who remained there during the Paris Exposition.

27. X Q. What was your salary during the different times you were at the Convex Weaving Co. per month? Give it as nearly as you can.

A. I did get $4 a day while I was there.

28. X Q. Do you know what compensation Mr. Müller received?

A. Mr. Müller told me some time while I was there that he did get $50 per week; but two of the directors of the Convex Weaving Co. came up and reduced his wages to $30 per week.

29. X Q. You don't think his services were worth that, do you?

A. If I had been in Müller's place I would have taken that for an insult, and would have left the works.

30. X Q. What mechanism does the "take-up" duty do in the invention which you claim to have made?

A. The pair of clamps combine with the lay and take-up rollers.

31. X Q. Where are the clamps located with reference to the rollers?

(Objected to as immaterial to the issue.)

67 A. The clamps and take-up rollers are put together as near as possible.

32. X Q. Does the fabric pass between the clamps; and, if so, whether before or after the rollers act?

A. The clamps will grip the cloth while the lay is in the act of beating up, and will remain there until the lay recedes; and the rollers are set in operation then by the lay to take up the slack of the cloth. I also have a patent to take up the cloth at the same time while the lay is beaten up.

33. X Q. Where is that in operation?

A. Four of these take-up motions have been in successful operation on one of Mr. Cohn's looms, which are working under Mr. Lyall's patent as far as the shuttle-motion is concerned—I mean one of these motions for each web. Ten of these looms are discontinued to be used, and this is one of them.

34. X Q. You saw some of the fanning of the corsets at the Convex Weaving Co., did you?

A. Yes, sir; I did.

35. X Q. Whereabouts on the corset was the fanning put?

A. It was somewhat higher on the front and back of the corset, and lower at that place where the corset is cut out for the arm-holes.

36. X Q. I mean at about what point in the pocket, relative to the upper edge of the corset, were these fannings put on?

A. They were different, according to the shape of the corset.

37. X Q. Different shapes require that they should be at different distances, do they?

A. I don't think that that is exactly necessary.

38. X Q. You mean that it is chiefly a matter of taste?

(Objected to, as the witness has not been produced as an expert in the design and configuration of corsets.)

A. I never paid any attention to the arrangement of the bone pockets in corsets; how they were located with reference to the upper
68 edges, or the differences apart.

39. X Q. When you were setting up looms and machinery for the Convex Weaving Co., how busy were you kept about that?

A. I was busy, together with some man I always had to assist me, to get all the machinery running and operating which was used for the manufacturing of corsets.

40. X Q. I mean how many hours a day were you busy ordinarily, in the rooms where the looms were?

A. When we had only a few hours running I personally attended to them to keep them in working order, and this required me to be most all the time in the weaving-room. Then I taught a man to do this part of the work, as my services were required in getting the several machines to work in the finishing and laundry department. I could not state how long I was in the weaving-room then, as I had to be all over the establishment.

41. X Q. Mr. Müller, when he went abroad, had previously taught you, and the rest of the men around there, how to get up these four looms, which you say were running when he came back from Paris, did he not?

A. All he done was to refer me to the drawings which he made, but they were not completed when he went away.

42. X Q. You were discharged from Mr. Cohn's factory in November, 1870, were you not; or is not that what you mean when you say you went away till June, 1871?

A. I was not. Mr. Cohn, now present, can say so, if he will. I left the establishment of my own will.

43. X Q. What did you leave for?

A. As all the machinery which Mr. Cohn bought, except one loom, was in running order, and Mr. Cohn had an idea to make alterations on his looms by Mr. Lyall, the defendant in this suit, and made me discharge my help, (the machinists,) I did not like to stay any longer, and went away with them.

44. X Q. You don't think Mr. Müller knows anything about the Jacquard, do you?

60 A. It is impossible for me to state what he knows about it.

CHARLES GAHREN.

Subscribed and sworn to this 3d day of January, 1874.

E. G. THOMPSON,
Examiner.

LOUIS LANGLOTZ, a witness produced on the part of the complainant, being first duly sworn, in answer to interrogatories propounded by Mr. Keller, of counsel with the complainant, deposes and says:

1. Q. What is your name, age, residence, and occupation?

A. Louis Langlotz. I am 47 years of age. I reside at 212 West 26th street, New York. I am foreman of the weaving department of Mr. Cohn's factory.

2. Q. When did you first enter into the employment of Mr. Cohn, and in what branch of the business?

A. In November, 1862, as foreman of the tape-weaving department.

3. Q. How long did you continue in Mr. Cohn's employ?

A. Last November eleven years.

4. Q. Do you know when Mr. Cohn first went into the business of weaving corsets?

A. In January, 1870.

5. Q. Do you know where the looms for weaving corsets came from, in Mr. Cohn's establishment?

A. From Melrose.

6. Q. When were those looms first received in his establishment?

A. The first part of January, 1870.

7. Q. When did they begin to put them up?

A. The last part of the same month.

8. Q. How many did they first put up?

A. Five.

9. Q. Why did they not put them all up at the same time?

70 A. Because we had no room for all.

10. Q. When did the first of those looms begin to work?

A. The first part of March of the same year.

11. Q. When did the rest of them commence working?

A. Commenced with the rest on the first part of May, and it took us till August.

12. Q. Did the cards come with the looms and Jacquards from Melrose to Mr. Cohn's?

A. For each loom one set of cards came.

13. Q. What kind of corsets did those looms weave, both as to the breasts, hips, and pockets?

A. Ribbed breast, plain hip, and hollow whalebone from selvedge to selvedge.

14. Q. What do you mean by hollow whalebone from selvedge to selvedge?

A. I mean if you cut a couple of threads away, then the whalebone-pocket is open from end to end.

15. Q. Were any alterations afterwards made in the cards for the weaving of the pockets; if yea, state when first, and for what purpose, were the alterations made?

A. The first alteration we made was to change the cards from ribbed

to plain breasts, in July, 1870. Mr. Cohn did not like the ribbed breast and gave me the order to change to plain breast.

16. Q. Any other alterations made in the cards after that; and, if so, for what purpose, at whose suggestion, and when?

A. The next time we altered the whalebone-pockets—to stop off the whalebones at some different places, at the suggestion of Mr. Cohn—the first part of August, 1870.

17. Q. To whom did Mr. Cohn suggest this alteration of closing the pockets?

A. To Mr. Baer and to me.

18. Q. Did he say what was the principal object in so stopping the whalebone-pockets in the corsets?

(Objected to as leading.)

A. To give the corset a nicer shape, and to save the sewing-work—labor-work—on it.

71 19. Q. Were any experiments made with a view to carry out Mr. Cohn's wishes on that subject; and, if so, by whom were such experiments made?

A. They were; by Mr. Baer and me.

20. Q. What was the result of those experiments?

A. The principle was right, but the places were not right.

21. Q. Were any, and, if so, how many, looms fitted up, to weave the corsets with the pockets in that way?

A. A couple of looms.

22. Q. State whether Mr. Cohn was satisfied with the points at which the pockets were stopped off in the corsets woven by these looms.

A. He was satisfied with the principle, but was not satisfied with the stopping-off places; they did not come correct.

23. Q. You remember when Mr. Zorn came into the employ of Mr. Cohn? and, if so, state when and in what capacity he was employed.

A. He came in January, 1871, as designer.

24. Q. How many looms were in operation there for stopping off the pockets in the weaving when Mr. Zorn came there?

A. I think five or six—I am not sure which.

25. Q. After Mr. Zorn came there were any alterations made in the cards; and, if so, what, and for what purpose?

A. He altered all on the whalebone-pockets.

26. Q. To alter what on the whalebone-pockets?

A. To stop off the whalebone on the whalebone-places.

27. Q. After the alterations were made by Mr. Zorn, were the pockets stopped off in the same places as they were in the five or six looms before he came there?

A. I do not know how that was. All I know is, that Mr. Cohn was not satisfied. I cannot remember just now.

28. Q. When was it was he dissatisfied; was it before the changes were made by Mr. Zorn, or after?

A. He was not satisfied the first time, and he was not satisfied the first time after Mr. Zorn came there.

29. Q. Were the Jacquards of all the looms altered after Mr. Zorn was there employed?

72 A. From the time when everything was changed I had nothing more to do with them. Then Mr. Saatweber had them in charge.

30. Q. What had Saatweber in charge?

A. The corset-looms.

And, being cross-examined by Mr. Witter, of counsel with defendants, says:

31. X Q. In the corsets referred to in question and answer 13, could you push a whalebone into a pocket, or through a pocket, without first cutting off the selvedge?

A. No, sir.

32. X Q. The pocket was stopped at the selvedge in the weaving, was it not?

A. Yes, sir.

33. X Q. When you wanted to stop the pocket lower down, away from the selvedge, what did you do?

A. Then we added another connection, so that the upper and lower part of the corset were connected together.

34. X Q. Question repeated.

A. As I understand the expression (Verbindung) connection, I am right.

35. X Q. When you wanted to stop the pocket off at a little distance from the selvedge, instead of at the selvedge, did you have to prepare the cards to produce that effect?

A. Yes. sir.

36. X Q. And then you adjusted the cords of the Jacquards, did you not, to suit the cards?

A. Yes, sir. They must also be altered.

37. X Q. If anything else is required to be done, please state what it is, to change the point in stopping off the pocket.

A. To change the cords and cards, and nothing else.

38. X Q. You succeeded in stopping them off at the points required by Mr. Cohn?

(Objected to, that the witness has not stated that he arranged the cards and cords in the looms for stopping off the pockets; and, further, the witness has not been produced or examined in chief, as an expert in the weaving of corsets, but merely to the fact that certain things were done.) Question withdrawn.

73

39. X Q. And you succeeded in arranging the cords and cards so that the pockets were stopped off at the points required by Mr. Cohn?

(First part of the objection to the previous question repeated.)

A. Yes.

40. X Q. In the weaving of the corsets, is it not necessary to change the cards and adjust the cords every time there is a change made in the figure or design of the corset?

(Same objection as to x-question 38.)

A. Whatever one wants to make, the cords must be so adjusted, and the cards to correspond.

41. X Q. Where was it that Mr. Cohn required you and Baer to have the pockets stopped off?

A. Mr. Cohn brought up a ready-made corset and showed it to us.

42. X Q. Such as he wanted you to make?

A. No, sir.

43. X Q. What did you mean by your answer to x-question 41? State it fully.

A. On the same places it should be stopped off where it formerly had been sewed.

LOUIS LANGLOTZ.

Sworn and subscribed to this 3d day of January, 1874.

E. G. THOMPSON,
Examiner.

Adjourned to Jannary 6, 1874, at 11 a. m.

74 NEW YORK, *January* 6, 1874—11 a. m.

Present: Counsel as before, and

SAMUEL GALLAND, a witness produced on the part of the complainant, being first duly sworn, in answer to interrogatories propounded by Mr. Keller, says:

1. Q. What is your name, age, residence, and occupation?

A. Samuel Galland; I am 38 years of age; I reside at No. 110 West 14th street, New York City; I am a merchant.

2. Q. Are you a partner of the complainant, Moritz Cohn; and, if yea, how long have you been such partner?

A. I am; since January 1st, 1868.

3. Q. What part of the business did you have charge of during the years 1870 and 1871?

A. I had the whole office business, consisting of financiering, selling and shipping of goods.

4. Q. Where were the corsets which were manufactured at 26th street kept—in the store?

A. They were sent to the down-town office.

5. Q. In what part of the down-town office were they kept?

A. In the basement and sub-cellar.

6. Q. When selling corsets, by what were they sold?

A. By sample.

7. Q. In what part of the building were those samples kept?

A. In the office.

8. Q. Prior to February, 1871, state how the pockets were stopped off near the upper edge of the corsets that were kept as samples to sell by.

A. They were fanned or sewed off.

9. Q. Prior to February, 1871, were any corsets sent down to the office which had the pockets stopped off in weaving? and, if yea, state where they were kept, and in what condition.

A. There did come down some of those packed in paper, and a dozen in a box, and they were stored in the basement or sub-cellar.

75 10. Q. Were you frequently absent from the office during the year 1870, and up to February, 1871? State generally what were your habits of attendance at the office.

A. I was all the time at the office.

11. Q. Are you acquainted with Mr. James Lyall, now present?

A. The first time I saw Mr. Lyall was at Mr. Cohn's factory during Mr. Cohn's absence in Europe. I was introduced to him at that time. This was in the summer of 1872.

12. Q. Do you know of the sale, or offer for sale, of corsets with the upper ends of the pockets stopped off in weaving, prior to February, 1871?

A. I do not.

And being cross-examined by Mr. Witter, says:

13. X Q. What do you mean by financiering? and state what duties that called upon you to perform.

A. Attending to the credit and debit of the concern.

14. X Q. Were you never required, in the prosecution of those duties, to leave your office?

A. Occasionally, for a few minutes, in the city.

15. X Q. Did you not go out of the city of New York during the year 1870?

A. Not to my recollection.

16. X Q. How much of your time was occupied in financiering during the latter part of 1870 and the first part of 1871?

A. Sometimes a half an hour during the day, and sometimes less.

17. X Q. Never more?

A. Very seldom more.

18. X Q. A man by the name of Fitzpatrick was one of the gentlemen interested in the sales of the goods while you were there, was he not?

A. He was our salesman.

19. X Q. Did you designate on your books the different kinds and styles of corsets you sold during that period?

A. We did not.

76 20. X Q. Then you make it a matter of memory solely, do you, as to whether you sold any corsets with the pockets stopped off in weaving, previous to February, 1871?

A. We had other except those that were fanned; no other for sale.

21. X Q. I suppose you can remember how soon after February you sold them?

A. Not exactly the date.

22. X Q. State as nearly as you can, and who you sold them to.

A. The middle or latter part of February. We sold them to H. B. Claflin & Co.

23. X Q. To anybody else?

A. Not to my recollection.

24. X Q. To whom did you sell corsets previous to February, 1871?

A. Different other parties, the names of which I cannot remember, unless looking in the books.

25. X Q. Will you look over your books and give me names of all of them before your examination is closed?

A. If it is necessary, I will do it.

26. X Q. I request you to do it.

27. X Q. How long was it previous to February, 1871, that corsets with the pocket stopped off in the weaving came to the office down town?

A. About four or six weeks; probably earlier than four or six weeks; I don't know exactly.

28. X Q. To whom were they, or any of them, sold, and when? and if you cannot remember exactly, state your best judgment.

A. Claflin, in February.

29. X Q. How do you tell a corset which has the pockets stopped off in the weaving from one that has not?

A. One is fanned on top, the other not.

30. X Q. Are not some corsets that are stooped off in the weaving also fanned; do you not know that to be the fact?

A. No; I do not.

31. X Q. I don't mean all the pockets fanned; some of them?

77 A. I do not.

32 X Q. Did you ever give Mr. Fitzpatrick any instructions not to sell corsets that came down from the factory in which the pockets were stopped off in the weaving?

A. I only gave him instructions to sell such goods as we had in stock.

33. X Q. Will you answer the question last put, yes or no?

A. No.

34. X Q. Who did the greater part of your selling, you or Mr. Fitzpatrick, during the time he was with you?

A. I can't tell.

35. X Q. Have you made up your mind whether you will give me the

names of the persons to whom you sold corsets in the latter part of 1870 and the first part of 1871?

A. I will if I can recollect them.

36. X Q. I mean, have you made up your mind whether you will examine your books, and then ascertain and report?

A. If it is required, I will do so.

37. X Q. Do you think you will do it if I require it, or if legally required to do so?

A. I will do it if you require it.

(Counsel for defendants requests it.)

38. X Q. Was it in the basement or subcellar—which—that these corsets with the pockets stopped off in the weaving, which came down, as you have testified, previous to February, 1871, were kept?

A. I think in the basement.

39. X Q. In what part of the basement?

A. In the rear.

40. X Q. How many corsets, of various kinds, did you have at that time in the basement?

A. Two kinds.

41. X Q. Describe them.

A. Those that were stopped off in the weaving and those that were fanned.

42. X Q. Where was the office where you did your financiering?

78 A. 87 Worth street.

43. X Q. Was it in the subcellar or in the basement?

A. The first floor—the store.

44. X Q. Were the corsets which you had in the basement which were fanned for sale?

A. They were.

45. X Q. Did you use the subcellar for a store-room, or for what purpose?

A. Storage.

46. X Q. Storage for what?

A. Of goods which we could not place in the basement.

47. X Q. They were for sale—the goods that were there—were they, the same as the other goods in the house?

A. Not all; some for sale and some not.

48. X Q. You understand me to be speaking of the subcellar, do you?

A. Yes, I do.

49. X Q. What kind of goods were there in the subcellar?

A. Raw material; or sometimes we put some finished goods there that were not for sale, in the subcellar. If we had no more room on the basement floor, we would put them down in the subcellar.

50. X Q. What goods do you refer to which were not for sale that you put in the subcellar?

A. Cotton yarn, wire, clasps, &c.

51. X Q. Is that all?

A. I think we put anything else we had to store there.

52. X Q. Name everything you can recollect which you had in the subcellar which was not for sale?

(Objected to as immaterial and as wasteful of time.)

A. We had sometimes corsets down there, too, which we had not for sale; paper bags, too, and paper.

53. X Q. What kind of corsets?

A. Our own corsets.

54. X Q. Is that as definite as you can be?

A. We had no corsets there.

79 55. X Q. How large was the rear part of the basement where you think you kept these corsets with the pockets stopped off in the weaving, in the latter part of 1870 and early part of 1871?

(Objected to as immaterial to the issue.)

A. A space of about 30 or 40 feet.

56. X Q. Do you mean square feet?

A. I mean about 30 or 40 feet square.

57. X Q. Did the boxes in which these corsets were contained differ from the boxes in which the corsets with the fanning upon them were put up?

A. They did not; but they were marked on the outside.

58. X Q. What was the mark?

A. A cross on the front of the box.

59. X Q. Were those that were done up in papers, that you have spoken of, in any way distinguishable from the fanned corsets?

A. Unless you opened them and saw them you could not tell them.

60. X Q. Were these corsets kept on the floor or on shelves, or how—I refer to those in which the pockets were stopped off in weaving, and made in the latter part of 1870 and fore part of 1871?

A. On the floor.

61. X Q. Did you have shelves in the rear part of the basement; and if so, what was kept on them?

A. Hoop-skirts.

62. X Q. Were these corsets put in the rear part of the basement in the same condition in which they came from the factory; and if not, how otherwise?

A. They were, just as they came.

63. X Q. Were any of the fanned corsets kept in the rear part of the basement?

A. They were kept in the centre of the basement, separate from the others.

Counsel for complainant instructs the witness as follows:

80 In making the examination of the books, with the view of giving the names of persons to whom such corsets were sold, you are instructed by counsel for complainant to limit such examination and report to sales made from the end of July, 1870, to February 1, 1871.

SAML. GALLAND.

Subscribed and sworn to the 6th day of January, 1874.

E. G. THOMPSON,
Examiner.

MORITZ COHN, the complainant, being recalled as a witness in this cause, in answer to interrogatories propounded by Mr. Keller, says:

1. Q. Have you been previously examined as a witness in this cause?

A. I have.

2. Q. Did you purchase all the looms, Jacquards, and cards for weaving corsets from the Convex Weaving Company, for the purpose of going into the manufacture of corsets; and if so, when did you make such purchase?

A. They were sold by a receiver's sale in December, 1869—I believe the 29th of December—and I purchased all the machinery, consisting of looms, Jacquards, cards, and all other machinery; in fact, the whole that was in the factory.

3. Q. Was there anything, in all that you purchased from the com-

pany, that would teach any one, or which taught you, how to weave corsets with the upper ends of the bone-pockets in the corsets stopped off in the weaving?

A. No.

4. Q. State what led you to the invention described in your patent at issue in this suit?

A. When I put the looms up and commenced to weave corsets and to put up the finishing departments, I made it my study to diminish labor on corsets which would produce the corsets cheap enough, so as to compare with the foreign market; when I was thoroughly acquainted
81 with the finishing of corsets, I found I had to have a good many girls to put the whalebones in the proper position in the pockets, and then had to have them fanned, which was a considerable expense to the corset, as foreign goods could always be sold cheaper than we could manufacture them. The first point I took was to diminish labor in the expense of fanning. About the middle of August, 1870, I took a 16-boned fanned corset, and went up-stairs to my foremen, (I had two,) Messrs. Langlotz and Baer, and showed them this corset. As I am a weaver myself, by trade, I made them certain suggestions, and marked off by pencil certain lengths in the proper shape of the corset, and I told them that we had to get a design made so that we could stop off the pockets at different lengths at the upper part of the corset, so as to save the labor of fanning and make a better appearance in the corset. Designing and card-making for any fabric is a special business. I went with the foremen to a card designer, who had been employed by the Convex Weaving Co. till the company failed. I engaged him for the same purpose. He started to make a design for five or six looms; finally could not succeed to give it the proper lengths to stop off the corset; in fact, he did not know enough. He experimented till about the month of November or December. He succeeded in stopping off the pockets, but they were so inferior that they could not be used for a corset which would give credit to a manufacturer. As I was determined to have that stopping off at the upper ends right, I advertised for experienced designers, and four or five applied; and the designer I have now, Mr. Zorn, I laid a sample before him, and he went to work and made a design. The moment he examined the bone-pockets, and examined the looms, Jacquard, and warp-beams so divided, he found out the distances which I wanted to have stopped off in the corsets at the different points, so as to give it the necessary shape of the corset. He found out that the Jacquard and harness was not properly arranged. He took the 5 or 6 looms—first he took one of them, made a design how the cords should be hung in the Jacquard, and also di-
82 vided the warp, so as to stop off at the particular points which I had designated on the corset. After a few months he succeeded, at a considerable expense to me, as we had to re-arrange all the looms.

5. Q. When first did you sell, or offer for sale, corsets which had the upper ends of the pockets stopped off in the weaving?

A. It was in February, or March, 1871; it was in the spring.

6. Q. Why did you not sell or offer for sale any such corsets prior to that time?

A. Because they were imperfect.

7. Q. State when such corsets, with the pockets stopped off in weaving, were produced to your satisfaction?

A. It was in April or May, I can't exactly tell which one it was, and on the one sample-loom which had been experimented on.

8. Q. Experimented on by whom?

A. Mr. Zorn, the designer.

9. Q. Up to the 1st of February, 1871, how many looms in your establishment were fitted up to stop off the pockets at the upper ends in the act of weaving, whether stopped off to your satisfaction or imperfectly?

A. Five or six.

10. Q. When did Mr. Lyall complete the application of his positive shuttle motion to the first loom in your establishment?

A. I think in the month of December, 1870.

11. Q. When was the order given to him to apply his said shuttle-motion to all the others of your looms?

A. I think it was at the end of February or March, 1871, when we made a contract; it was more likely March than February.

12. Q. Do you continue to use that positive shuttle-motion on your looms?

A. A portion are discontinued; a portion I run yet.

13. Q. Have you given him any notice or notices as to the payment of royalties to him for the use of that shuttle motion; and if so, state fully what has been your action on that subject?

(Objected to as immaterial.)

83 A. I am compelled, by a certain agreement which I have signed with Mr. Lyall, that when I wish to discontinue to run some of his positive-motion shuttles, to give him notice in every year before January 1st. In this instance I gave notice that I should discontinue the use of his shuttle-motion when the next payment should come due. I gave him final notice last year that I am going to discontinue some this year. The reason is this: that I pay all the royalty in advance every six months, and then I have a right to discontinue as many as I like, but pay him for those I continue to use.

14. Q. When did you give the first notice referred to in your last answer?

(Objected to as immaterial.)

A. I think it was in October, 1872.

15. Q. When did you give the second notice?

(Same objection.)

A. In the latter part of 1873.

16. Q. On how many looms have you at present discontinued the use of that positive shuttle-motion?

(Same objection.)

A. Ten.

The cross-examination waived.

M. COHN.

Subscribed and sworn to the 6th day of January, 1874.

E. G. THOMPSON,
Examiner.

The further examination of witnesses on the part of the complainant is adjourned till January 7, 1874, at 11 a. m.

84 NEW YORK, *January* 7, 1874—11 a. m.

Present, counsel as before, and the witness Samuel Galland, who, in answer to x-ints. propounded to him yesterday, now says:

The names of the parties to whom we sold corsets, between the dates for which I was instructed to furnish them, are as follows: P. J. Willis & Co.; Hoffman Bros., A. J. Evans; Byram, Cornelius & Co., Downs

& Birdsye, G. Maghee & Co.; Wood, Marsh, Hayward & Co.; Howes, Pumphrey & Co.; Joseph Horne & Co.; John V. Farwell & Co.; C. J. Pettibone; Carr, McCandles & Co.; Bowen, Hurd & Winslow; Wm. Semple; Henry Bell & Son; Joel J. Bailey & Co.; Alexander, Bush & Atkinson; Morro & Doty; Murphy, Johnston Co.; Stilson, Leek & Doering; L. Passani & Sons, Wm. E. Stein.

And, being further cross-examined by Mr. Witter, says:

64. X Q. Do you think those parties knew at the time, or could tell now, what sort of corsets they received, as respects the manner of the weaving of the pockets?

A. I think not.

65. X Q. Which of them did you continue to sell to after the first of February—most all of them?

(The witness is instructed that he is at liberty to refuse to answer any question which calls upon him to name parties to whom his firm sold corsets after the 1st of February, 1871, as the sale of corsets after the 1st of February, 1871, cannot in any manner have any bearing upon the issue.)

A. Under instruction of counsel I decline to answer.

SAML. GALLAND.

Subscribed and sworn to the 7th day of January, 1874.

E. G. THOMPSON,
Examiner.

85 J. N. McINTIRE, being recalled as a witness on the part of the complainant, in answer to interrogatories propounded by Mr. Keller, says:

1. Q. Have you been previously examined as a witness in this cause?

A. I have.

2. Q. Have you read the testimony of G. Zorn as to the manner in which the looms were corded in connection with the Jacquards in complainant's establishment at the time he was first employed by the complainant? I have reference to the looms in which the pockets of the corsets were stopped off in the weaving?

A. Yes; I have.

3. Q. So corded, was it practicable, by merely punching the cards properly, to stop off the pockets near the upper edge of the corset at any distance required? And, if so, state why.

A. It was not possible by merely punching the cards differently to stop off the pockets at any desired point. That is to say, it was necessary, in addition to a change in the punching of the cards, to change the arrangement of the cords by which the warp-threads were connected with the needles of the Jacquard. As those looms were arranged or harnessed the pockets could be stopped off at any one of the warps, but it was impossible to stop them off at any desired point within a single warp or in the midst of one warp. I have made a rough diagram or sketch, which I now produce.

(Counsel for complainant offers said diagram in evidence, marked "Compl't's Exhibit McIntire, No. 1, E. G. T., ex'r.")

This diagram correctly shows the arrangement of cords which existed in said looms, (according to the testimony of Zorn referred to,) and by it I think I can clearly show the impossibility of stopping off the pockets anywhere in the midst of one warp.

The series of red parallel lines embraced by the double cross-line

marked "N N" represents what would be designated as one warp, which was composed of 48 threads.

86 The series of blue lines, 48 in number, and embraced by the double line O O, represents another adjoining warp, next to which came another similar warp composed of 48 threads, (a portion of which are shown in red lines S to S,) and so on were arranged 43 of these warps, composed each of 48 threads, these 43 warps, or 2,064 threads, arranged side by side, going to make up the entire width of the corset web. The 48 threads of each one of these warps were corded or connected to 12 needles in the Jacquard, the system or arrangement of this cording being duplicated in each of the 43 warps.

In this sketch I have illustrated or shown this arrangement of cording, or harnessing, with regard to one warp of 48 threads, which illustration will of course give a correct idea of the whole series.

By reference to this sketch it will be seen that to each one of the needles, numbered, respectively, from 1 to 12, are connected four cords running to the warp-threads in this manner, viz: The four cords from needle No. 1 run, respectively, to the 1st, 13th, 25th, and 37th threads of the warp. The four cords from needle No. 2 run, respectively, to the 2d, 14th, 26th, and 38th threads of the warp; and so on until the four threads of needle No. 12 run, respectively, to the 12th, 24th, 36th, and 48th threads of the warp.

Now, it will be seen by this arrangement of the cording or harness with four cords to each needle, the first 12 threads of the warp are connected, respectively, to the 12 needles shown; that is, each thread of these 12 is connected to one of the said 12 needles. And it will also be seen that each succeeding 12 threads are connected to the same 12 needles.

By looking at this sketch this will be clearly seen by observing that the 12 warp-threads embraced within the red line *a a* are connected to the 12 needles in the manner stated, and that the next 12, embraced within the short line *b b*, are similarly connected to said needles; that the next 12, within the line *c c*, are connected in like manner to said needles; and that the last 12, embraced in the line *d d*, are likewise

87 connected in the same manner to the same needles; and that thus we have these 12 needles separately connected four times to four series of threads, composed each of 12, making, in all, the aggregate 48 threads of one warp.

In other words, the arrangement of the cords from the 12 needles to the first 12 threads, is simply repeated 4 times, for the purpose of connecting the whole 48 threads with the whole 12 needles.

Now, in order to stop off a pocket anywhere within the space or width occupied by these 48 threads, (or in the midst of this one warp,) it would of course be necessary to so lift or manipulate the warp-threads as to weave double, or weave two thicknesses of cloth at that part of said warp where the pocket existed, and at the same time weave single or one-thickness cloth by a different manipulation of the warp-threads beyond the end of the pocket, which would be simply impossible, because the lifting of those threads of this warp in a certain manner, to weave the pocket or double portion, would inevitably necessitate precisely the same sort of lifting of the balance of the threads of this warp at the same time, since each series of 12 threads is operated upon by the self-same 12 needles.

It was, of course, possible, and very easy in these looms, to stop off the pocket or double-portion at any one warp, as illustrated, for instance, at P^2 and at P; but the points, during the width of the whole web, at

which the double or pocket-weaving, and the single or solid portion weaving could be separated, had necessarily to be at some one of the lines of separation between the several warps.

To illustrate more clearly the impossibility of stopping off the pocket in the midst of any one warp, I will assume that it is attempted to stop off the pocket at the letter X instead of at P^2, as shown in the sketch. Now, to do this, it is clear that the warp-threads from 37 to 48, inclusive, must be lifted or shed in such a manner during the insertion of certain picks as to weave double or two thicknesses of cloth during the width of web occupied by these warp-threads, (from 37 to 48, inclusive.) But as the 12 needles which so lift these 12 threads are connected to
88 the other 36 threads, it follows as a matter of necessity that these other 36 threads will at the same time be lifted in precisely the same manner, and that during the width occupied by these 36 threads, the material, during the insertion of said certain picks, will be woven double and precisely like that part of the width during which only it was attempted to weave double or form a portion of the pocket.

4. Q. Have you examined and are you familiar with the English provisional specification, Complainant's Exhibit No. 143, filed by John Henry Johnson, at Office of Commissioner of Patents, January 20, 1854; and, if yea, state if you found a like provisional specification filed by the same party; and, if so, when?

A. I have examined and am familiar with the provisional specification of Johnson referred to in the question. I have seen another provisional specification of the same party, in the Records of English Patents at the Astor Library, which specification is a duplicate of the one referred to in the question, is dated September 5, 1853, and numbered 2044.

5. Q. Have you searched in the Astor Library, among the printed English patents, whether either of these provisional protections were ever completed into a patent?

A. I have looked, but have been unable to discover any completion or final specification of either of these patents in which provisional protection only was obtained. Some time ago I made myself pretty familiar with the English patents relating to corsets and looms for weaving corsets, and in searching among the patents at that time I then saw both of these Johnson provisional specifications; but I then also failed—as I have since failed—to discover any complete specifications of the thing referred to in these provisional specifications of Johnson.

6. Q. Can a corset with the bone pockets stopped off in weaving, as in complainant's patent, be produced from the description in Johnson's provisional specification, by a person acquainted with the art of Jacquard weaving? and give your reasons for any opinion you may express on that subject.

The further examination of this witness adjourned till January 8, 1874, at 10 a. m.

89 NEW YORK, *January* 8, 1874—10 a. m.

Present, counsel as before; and the further examination of the witness, J. N. McIntire, being continued, in answer to the 6th interrogatory he says:

A. A corset with the bone pocket stopped off in weaving, and like that shown and described in complainant's patent, cannot be produced from the said description; in other words, this description in Johnson's provisional specification does not so instruct a person acquainted with

the art of Jacquard weaving, as to enable him to produce such a corset The invention alluded to in this provisional specification is said to relate to the manufacture of woven corsets, and to "consist in the employment of the Jacquards in the loom, one of which effects the shape or contour of the corset, and the other formation of the double portions, or slots, for the introduction of the whalebones." It was not possible, with the known state of the art, to thus employ two Jacquards, by one of which the warp-threads should be manipulated so as to produce the double weaving or pocket portion, while by the other these warp-threads should be so controlled or operated upon as to produce the single weaving or "single parts" of the corset. In the production of corsets, such as referred to in complainant's patent, the same warp-threads, which, by a certain system of interlacing with the weft-threads or filling, enter into the composition of the doubly woven or pocket portions of the corset, enter also (all of them) into the composition of the single parts of the corset; from which it follows, as a necessity, that these warp-threads must be continually manipulated during the insertion of the filling and production of the corset material, in order to do which, and at the same time have them controlled during one part of the time by one Jacquard, and at another by another Jacquard, it would be necessary to have the connections between these warp-threads and the two Jacquards alluded to in this provisional specification intermittently made and broken; that is to say, it would be necessary for these warp-threads to be con-
90 nected with one Jacquard during the time a pocket was being woven, and then to have this connection cease and the same threads connected to the other Jacquard for the purpose of forming the single portion, and so on successively during the successful formations of the single and double portions of the material, which conditions and mode of operation were wholly unknown in the state of the art, and seem to me to be practically impossible in weaving the material. In this provisional specification it is said that the slots or double portions are made simultaneously with the single parts, which would seem to indicate that by the single parts were meant only those portions of the web located near each end of and in line with the pockets, because it would be utterly impossible to form "simultaneously" the two different portions during the length of the web, in which occur a pocket and a single part (such as occurs between every two pockets;) but as it is equally impossible to accomplish what is distinctly pointed out as the gist of the invention, and as it is mainly or wholly in that single part which lays between the pockets that the weaving is so done as to produce the desired effects, as to the "shape or contour of the corset," I clearly understand that this provisional specification distinctly instructs those skilled in the art to employ one Jacquard for the purpose of manipulating all the warp-threads in one manner so as to effect the formation of the double portions, and another Jacquard for the purpose of operating the said threads so as to effect the composition of the single portions which intervene between the pockets, and which possess the characteristic feature of inducing to the "shape or contour" to the finished article; and this, as I have said, could not be accomplished by those skilled in the art, and seems to be impossible with the means known in the art of weaving corsets. I am well aware of the fact that the employment of two or more Jacquards in one loom, and for the purpose of manipulating the warp-threads of one web or width of material, was common in the state of the art, but in such use of a series of Jacquards it was never attempt-
91 ed, that I am aware of, to have any one thread of the warp manipulated at different times by two different Jacquards, or to have

the control of any one thread alternately transferred from one to another Jacquard, one of which two conditions seems to me to be indispensable for the purpose of carrying out the instructions given by this provisional specification, and both of which seem to me to be impossible in practice.

7. Q. When cross-examined in your former deposition, you stated in substance that the application of Mr. Cohn for the patent at issue in this case was at first rejected for the want of novelty, reference having been made to an English patent. Will you state particularly what that reference was, whether a patent or a provisional specification, and in whose name was that patent?

A. The reference given was a provisional specification of John Henry Johnson for an English patent; it was the same that has been put in evidence in this case, and the same as referred to in the preceding question, (No. 6;) in the records of English patents these provisional specifications are all bound up with the completed patents, and the Patent-Office, making reference to them, refer to them generally as "English patents" of certain number and date. I therefore, in my previous deposition, alluded to this reference simply as an "English patent."

8. Q. At the time you were referred to this provisional specification by the Patent-Office, and on their examining it, did you see it stated whether the result was to be produced by one or two Jacquards?

A. I did not then notice that this provisional specification stated that two Jacquards were to be employed; my attention was directed simply by the examiner to that part of said specification which alluded to the slots being terminated at any required length in the corset, instead of running all the way through. This point only was considered and discussed between us, the office finally concluding that as this provisional specification did not distinctly or clearly describe a corset with the pockets stopped off in the manner claimed in Mr. Cohn's patent, it should not bar the granting of said patent.

92 (This answer objected to for the reason that the witness' statement regarding the conclusion of the Patent-Office is not the proper evidence; it is secondary evidence; that it is not primary evidence, and, lastly, because the best evidence, namely, the file contents, is already in evidence.)

J. N. McINTIRE.

Sworn and subscribed to this 8th day of January, 1874.

E. G. THOMPSON, *Examiner.*

United States circuit court, southern district of New York.

In equity.

MORITZ COHN
vs.
THE UNITED STATES CORSET COMPANY ET ALS.

It is admitted, for the purposes of this suit, that the specification, a copy of which is marked "Exhibit, Copy Johnson Specification, J. G., jr., ex'r," was published in England in the year 1854, and contained in volume 2 of a printed publication circulated in this country as early as the year 1856.

Dated Dec. 23rd, 1873.

KELLER & BLAKE,
Complainant's Solicitors.

NEW YORK, *Dec.* 23, 1873.

93 COMPLAINANT'S EXHIBIT No. 143, E. G. T., EX. ENGLISH PATENT, A. D. 1854.

No. 143.—*Manufacture of stays or corsets.*

(This invention received provisional protection, but notice to proceed with the application for letters-patent was not given within the time prescribed by the act.)

Provisional specification left by John Henry Johnson at the office of Commissioners of Patents, with his petition on 20th January, 1854.

I, J. H. Johnson, of 47 Lincoln's Inn Fields, in county of Middlesex, and of Glasgow, North Britain, gentleman, do hereby declare the nature of said invention for improvements in the manufacture of stays or corsets communicated to me by Adolphe George Geresine, of Paris, in empire of France, manufacturer, to be as follows:

This invention relates to the manufacture of what are known as woven corsets, and consists in the employment of the Jacquards in the loom, one of which effects the shape or contour of the corset, and the other the formation of the double portions of slots for the introduction of the whalebones.

These slots or double portions are made simultaneously with the single parts of the corset, and in place of being terminated in a point, they are finished square off, and at any required length in the corset, instead of always running the entire length, as is usually the case in woven corsets.

When the corset is taken from the loom, the whalebones are inserted into these cases, and the borders are formed, thus completing the article, which contains all the elegance and graceful contour of sewn corsets made by manual labor.

49 COMPLAINANT'S EXHIBIT, No. 143, E. G. T., *Ex'r.*

Englisches Patent, A. D. 1854.

No. 143.

Fabriziren von Schnürleibern oder Corsetten.

Diese Erfindung erhielt provisorischen Schutz, jedoch keine Notiz wurde gegeben für das Fortfahren mit der Applikation für das Patent, während der Zeit vorgeschrieben in dem Akt.

Provisorische Einzelheiten von John Henry Johnson wurden in der Office des Commissioner of Patents mit seiner Bittschrift am 20. Januar 1854 hinterlegt.

Ich, J. H. Johnson, 47 Lincoln's Inn Fields, County of Middlesex und of Glasgow, North Britain, Gentleman, erkläre hierdurch, daß die Natur besagter Erfindung für Verbesserung in der Fabrikation von Schnürleibern oder Corsetten, welche mir von Adolph George Geresine von Paris, im Kaiserstaat von Frankreich, Fabrikant, mitgetheilt wurde, folgende sei:

Diese Erfindung bezieht sich auf die Manufactur auf was bekannt sind, als gewebte Corsetten und besteht in Verwendungen von Jaquarden in dem Webestuhl, von welchen einer bezweckt die Façon oder Contour des Corsetts, und der andere die Bildung der doppelten Theile von Oeffnungen für die Einführung des Fischbeines.

Diese Oeffnungen oder doppelten Theile werden gleichzeitig gemacht mit den einfachen Theilen des Corsetts, aber anstatt, daß sie endigen in einer Spitze, werden sie quadratförmig verfertigt und nach irgend welcher gebrauchten Länge in dem Corsett, anstatt daß sie die ganze Länge laufen, wie es sonst bei gewebtem Corsett der Fall ist.

Wenn das Corsett von dem Stuhle genommen wird, werden die Fischbeine eingesetzt und so die Kante formirt, auf solche Weise vervollständigend den Artikel, welcher erhält alle Eleganz, graziöse Contour von genähten Corsetten, welche von Hand gemacht werden.

95 COMPLAINANT'S EXHIBIT No. 1.—E. G. T., *Exr.*

THE U. S. PATENT-OFFICE.

To all persons to whom these presents shall come, greeting:

This is to certify that the annexed is a true copy from the records of this office of the letters-patent granted Moritz Cohn, dated April 15th, 1873, No. 137,893, for "Improvement in corsets."

In testimony whereof I, M. D. Leggett, Commissioner of Patents, have caused the seal of the Patent-Office to be hereunto affixed this 20th day of September, in the year of our Lord one thousand eight hundred and seventy-three, and of the Independence of the United States the ninety-eighth.

[L. S.] M. D. LEGGETT,
Commissioner.

UNITED STATES OF AMERICA.

To all to whom these presents shall come:

Whereas, Moritz Cohn, of New York, New York, has presented to the Commissioner of Patents, a petition praying for the grant of letters-patent for an alleged new and useful improvement in corsets, a description of which invention is contained in the specification of which a copy is hereunto annexed and made a part hereof, and has complied with the various requirements of law in such cases made and provided; and

Whereas, upon due examination made, said claimant is adjudged to be justly entitled to a patent under the law:

Now, therefore, these letters-patent are to grant unto the said Moritz Cohn, his heirs or assigns, for the [term of seventeen years from the fifteenth day of April, one thousand eight hundred and seventy-three, the exclusive right to make, use, and vend the said invention throughout the United States and the Territories thereof.

96 In testimony whereof I have hereunto set my hand and caused the seal of the Patent-Office to be affixed at the city of Washington, this fifteenth day of April, in the year of our Lord one thousand eight hundred and seventy-three, and of the Independence of the United States of America the ninety-seventh.

Countersigned. B. R. COWEN,
Acting Secretary of the Interior.

[L. S.] M. D. LEGGETT,
Commissioner of Patents.

UNITED STATES PATENT-OFFICE.

MORITZ COHN, OF NEW YORK, N. Y.

Improvement in corsets.

Specification forming part of letters-patent No. 137,893, dated April 15, 1873; application filed January 30, 1873.

To all whom it may concern:

Be it known that I, Moritz Cohn, of New York City, in the State of New York, have invented certain new and useful improvements in corsets; and I do hereby declare that the following is a full and exact de-

scription thereof, reference being had to the accompanying drawing making part of this application:

Previous to my invention it has been customary in the manufacture of corsets to weave the material with pocket-like openings or passages running through from edge to edge, or all stopped and finished off at a uniform distance from the edge, and adapted to receive the bones, which are inserted to stay the woven fabric, and which serve as braces to give shape to and support the figure of the wearer. This method of manufacturing the corsets necessarily involves a great deal of hand-labor, and, consequently, expense, in stitching up the ends where they are woven with pockets running through from edge to edge to hold the bones in place, or else the upper ends of the bones are necessarily all located at a uniform distance from the edge, resulting in a less perfectly-shaped corset than is produced by following out my invention.

97 I propose, by my invention, to overcome the objections just named, and produce a corset in which the location or position of the bones endwise shall be predetermined with the accuracy of the Jacquard in the process of weaving the corset stuff or material, while I at the same time effect a great saving of labor and expense, and give a more perfect shape. My invention has for its main object, therefore, not only the production of a better article but also a reduction in the cost of manufacture; and to these ends my invention consists in having the pocket-like openings or passages into which the bones are put closed up near one end at that point at which it is designed to have the end of each bone located, as will be hereinafter more fully set forth.

To enable those skilled in the art to make and perfectly understand my invention, I will proceed to more fully describe it, referring by letters to the accompanying drawing, in which, for the purpose of illustration, I have represented two corsets, one made according to the mode of manufacture heretofore most generally practiced, the other according to my new method.

It will be seen by reference to Figures 1 and 2 that the bones *a* are held or secured in place endwise in the pockets *b* of the corset-material C by stitching *e*, which is done after the insertion of the bone, and retains the bone endwise by closing up the passage-way or pocket in which it is located. This is in accordance with or illustrates the mode of manufacture originally practiced, and only departed from prior to my invention, as heretofore explained.

At Figs. 3, 4, and 5 is illustrated, in elevation and longitudinal and cross sections, a corset made according to my improved plan.

In these figures, A is the woven fabric of the corset, which, in lieu of being made with pocket-like openings or passages running through from edge to edge, or up to a uniform distance from the edge, I propose to have woven with pockets or passages, which extend from one edge of the fabric toward the other, but stop short of the latter at such point or locality as is predetermined for the location of the end of each bone, according to the design or shape to be given to the corset, as

98 shown. The fabric is woven with the pockets extending, as seen, from one edge, B, of the fabric to the points, *b*, *c*, *d*, &c., and from these points out to the edge F the fabric is woven solid or without any passages. *f f* represent the bones, which are made of the proper length, and are inserted from the edge B or at the open ends of the pockets. After their insertion the bones are pushed "home" to the bottom of their respective pockets, when the mouths or open ends of the said pockets are closed up by the stitching and binding of the edge B of the corset, and the perfect retention of the bones thus effected.

It will be understood that by forming the corset, as described, with pockets closed at one end, and weaving in such pockets of varying lengths, I am enabled to determine in the manufacture of the corset-fabric the precise points to which the subsequently inserted bones shall extend, and thus pattern any number of corsets exactly alike and to the most desirable model.

Corsets made according to my improved plan, it will be seen, can be made to a perfect and regular pattern, will be more desirable in appearance, and can be produced at less cost than those made according to the mode of manufacture practiced previous to my invention.

I am aware of and do not claim a woven corset with the pockets stopped and finished off at a uniform distance from the edge; I am also aware of and do not claim a hand-made corset with pockets of varying lengths stitched on; but

What I do claim as new, and desire to secure by letters-patent, is—

A corset having the pockets for the reception of the bones formed in the weaving, and varying in length relatively to each other, as desired, substantially in the manner, and for the purpose set forth.

In testimony whereof I have hereunto set my hand and seal.

M. COHN. [L. S.]

In presence of—
J. N. McINTIRE,
GEO. A. GREENWOOD.

99 *Proofs in rebuttal.*

NEW YORK, *February* 2, 1874—11 a. m.

Present: Counsel for both parties.

ALBERT KUNKLER, a witness produced on the part of the complainant, being first duly sworn, in answer to interrogatories propounded by Mr. Keller, says:

1. Q. What is your name, age, residence, and occupation?

A. Albert Kunkler. I am 32 years of age. I reside at Philadelphia. I am a designer.

2. Q. Designer for what?

A. Any kind of goods to be woven by the Jacquard.

3. Q. State fully what has been your experience in designing, mounting, and operating Jacquard machines for weaving figured fabrics.

A. I wove them myself, and put up the harness and loom to make them work, and cut the cards.

4. Q. How long have you been engaged in that business?

A. Eighteen years.

5. Q. In what establishment are you now employed, and in what capacity?

A. Ichner & Co., at Tioga, Penn., as designer.

Q. Have you examined the translation of the description marked "Exhibit Johnson;" and, if yea, state whether a corset can be woven practically by two Jacquards, as stated in that exhibit—one to produce the configuration, and the other the bone-pockets closed near the upper end in the act of weaving.

A. It can't be done practically by two machines.

7. Q. Will you give the reasons why, and in giving your reasons, produce any diagrams or illustrations which you may have prepared for the purpose, that they may be made exhibits in this case.

A. Well, it only needs one machine, and there is no use of having two,

because when one machine works, the other one stands still. The harness of the machine which stands still will be loose. The lingoes where the two cords of both machines are attached, will consequently twist together, and, by having the loom running steady for a certain time, the shed will and must get uneven, so that it is a hard matter for the loom-fixer to keep the shuttle in shape. Now, by having two machines, you need two harnesses, twice as much expense as there is with one. You need two sets of cards instead of one set. If, for instance, you work with two machines, one cord in one machine breaks, the weaver can't look into the thing so well, because the thread is attached to the other machine, and won't lay down on the shed by the next pick, because the other machine will raise that end up again, and consequently a weaver can weave a great time before he sees a mistake, and the goods will be damaged. I produce two diagrams, (which are marked "Exhibits Complainant's Kunkler, Nos. 1 and 2, E. G., T., Ex'r.")

8. Q. What does diagram Exhibit Kunkler No. 1 illustrate?

A. That illustrates those two machines; one is working, the other lies still. In the one that lies still the harness lies loose.

9. Q. What is the usual extent of the opening of the shed in Jacquard looms?

A. Four to five inches; it depends how big the shuttle is.

10. Q. In opening the shed by one Jacquard, how much must the warp-threads be lifted?

A. Four to five inches; it depends how big the shuttle is.

11. Q. Will that be the extent to which the threads connected with other Jacquards will be loosened?

A. Yes, sir.

12. Q. Will you mark on diagram Exhibit Kunkler No. 1, by the letter A, the Jacquard which has lifted, and by the letter B the Jacquard which has the cords loose; with the letter C, the line of mails which form the upper part of the shed; with the letter D, the line of mails that form the lower part of the shed; with the letter E, the line where the two sets of warps meet, representing the line of weaving?

A. I will, and I do so.

And the witness makes such marks.

101 13. Q. What does the diagram Complainant's Exhibit Kunkler No. 2 illustrate?

A. That shows the cords of both of the Jacquards. As the weather has a great deal of influence on the cords, the loose cord will consequently twist with the other one, and will, by having the loom working for a certain time, make an uneven shed. If it is damp weather, the harness will shrink, and if dry, will expand.

14. Q. Is there any part of the diagram Kunkler No. 2 which represents the cords that are lifted by one Jacquard and the cords that are connected with the other Jacquard, and which are left loose? and, if so, mark the two sets by letters on the diagram—those that are lifted by the letter F, and those that are loose by the letter G.

A. Yes; and I mark the same accordingly.

15. Q. In the two diagrams, Kunkler Exhibits Nos. 1 and 2, are the cords from the two Jacquards that go to the same warp-thread connected above or below the cumber-board?

A. Below.

16. Q. Would it make any material difference, in practical working, whether connected together above the cumber-board instead of below?

A. The same confusion—and no difference whether below or above;

by having the two cords attached to the lingo below the cumber-board there will be more friction, because two cords have to run through the cumber-board.

17. Q. Look at the drawing Defendant's Exhibit Gilroy, what is said to represent "Example No. 6," "Aurora Borealis Tie Up," in "Gilroy on the Art of Weaving," and state what that represents.

A. This illustration shows a design of harness for an altogether different kind of work, known as the "damask weaving;" there are two Jacquards working in one loom—one would be sufficient—but to prevent wearing out of the warp, which would occur, because of the three or four lingoes attached to one thread in a Jacquard, the warp will be drawn through shafts, and these shafts will consequently be worked by the second Jacquard; the same kind of work can be made in one machine.

102 18. Q. For what part of the web is the Jacquard at the right-hand side of the diagram used; is it for the figuring or for the ground?

A. For the ground.

19. Q. In that kind of mounting does the Jacquard at the right-hand side of the diagram perform any duty in figuring of the fabric?

A. No; not in the figuring, only in the ground.

20. Q. Explain what is meant by the word "lingo" in the Jacquard?

A. "Lingo" consists of four parts—the upper part of the cord, the eye, the lower part of the cord, and the weight—as I indicate on diagram Kunkler No. 2, by the figures 1, 2, 3, and 4. If there are two strings attached to one "lingo," it will require more weight, because the friction in the cumber-board is greater—the more the friction the more the wearing out.

And being cross-examined by Mr. Witter, says:

21. X Q. Did you ever see two Jacquards working in one loom?

A. I did.

22. X Q. Did you ever see two Jacquards working in one loom, in which a cord from each Jacquard was attached to the same warp-thread?

A. Never saw that.

23. X Q. Did you ever see two Jacquards working in one loom, in which some or all of the warp-threads could be operated by either Jacquard at pleasure?

(Objected to, as the question will necessarily lead to confusion, as in many looms two Jacquards have been used, one to operate the shafts to weave the ground, and the other Jacquard to operate the warp to produce the figure, and both at times necessarily operate the warp.)

A. O, yes; I have seen that.

24. X Q. In the Jacquards of that character which you have seen, could each Jacquard operate at pleasure upon every warp-thread?

A. No, sir.

103 25. X Q. Why not?

A. We will take a warp of 800 threads, put two machines on top of the loom, draw 400 ends in the harness of one machine, and 400 ends in the harness of the other machine; then you can run every end for itself.

26. X Q. Is that a machine of the character referred to in your answer to X Question 23?

A. Yes.

27. X Q. Then you did not mean that you had seen a loom employing two Jacquards, either of which could operate at pleasure upon the same warp-thread, did you?

A. No; I never said I had seen one.
28. X Q. Did you ever see such a one?
A. No.
29 X Q. Have you ever woven any corsets?
A. I have not.

And being further examined by Mr. Keller, says:

30. Re-d. Q. Look at the two specimens of weaving now put in evidence, and marked "Exhibits Kunkler Nos. 3 and 4," and state, if you know, who designed them, who mounted the Jacquard loom on which they were woven, and who wove them.

A. I made the design; the loom was mounted already; I cut the cards; drew in the warp, and wove three or four of the scarfs myself.

ALBERT KUNKLER.

Sworn and subscribed to this 2d February, A. D. 1874.

E. G. THOMPSON,
Examiner.

FREDERICK MENGEL, a witness produced on the part of the complainant, being first duly sworn, in answer to interrogatories propounded by Mr. Keller, counsel with complainant, deposes and says:

1. Q. What is your name, age, residence, and occupation?

A. My name is Frederick Mengel. I am 48 years of age. I
104 reside in Germantown, Pennsylvania. I am a pattern designer and weaver.

2. Q. State the extent of your experience in the designing and in the Jacquard weaving.

A. In my 18th year I visited the weaving-school in Elberfeld, Germany; for one year the weaving-school at Kemnitz, Saxony; I then went to Kiel, in Holstein, as designer; from there back again to Kemnitz, and received letters of recommendation to Messrs. Alexijeff in Moscow, Russia, where I was appointed superintendent, and remained there as such four years; returned then to Germany, and became teacher in the weaving-school at Rannaburg, Saxony; from there I went to Gratzau, as superintendent for Messrs. Charles Anders & Company; and from there I returned home as designer and private teacher for the higher class of weaving. The war year, 1866, caused me to come to America; here I have worked, partly as designer and partly as a practical weaver.

3. Q. Have you examined complainant's Exhibit No. 143, which is a translation of defendant's Exhibit Johnson, and state whether corsets can be practically woven with two Jacquards, as therein stated—one Jacquard to produce the contour and the other the pockets for the bones, closed near the upper end of the corset, in the act of weaving?

A. It is not practicable, and cannot be done.

4. Q. Will you give your reasons why, and refer to any diagrams in illustration of your views, which you may have prepared, that they may be made exhibits in this case?

A. Because the result of making the pockets by two machines will be effected by the use of one machine, as I will show by reference to drawings. It cannot be effected by two, unless one rests altogether; because, with one machine every desirable effect in corset-weaving can be attained. Secondly, because, when two machines are working together, a greater friction and more breakage will occur; much heavier weights must be used to (entgegenstehen) counterbalance the harness cords. Thirdly,
105 by the use of heavier weights, more breakage of the warp-

threads is occasioned. Fourth, when one machine remains at rest and the other works, twisting will occur in the harness of the machine remaining at rest, which will cause the breaking of the warp-threads, and will produce bad work, and will make it more difficult to discover the imperfections in the work. In the question of cost, double cards and double expense will result.

Counsel for complainant offers in evidence two diagrams, marked "Mengel Exhibits Nos. 1 and 2."

5. Q. State what the drawing Exhibit Mengel No. 1 is intended to represent.

A. This represents the working of the Jacquard machine on a part of the corset.

6. Q. Does it represent one or two Jacquards as applied to weaving corsets?

A. Two machines.

7. Q. Look at the drawing Exhibit Gilroy, and state what that represents.

A. That represents a Jacquard machine and a Shaft machine.

8. Q. Which is the Shaft machine, the one on the right-hand side or the one on the left?

A. The one on the right is Shaft, that on the left is Jacquard.

9. Q. If a loom mounted like Exhibit Gilroy—with one Jacquard and one Shaft machine—could a corset be woven in such a loom, by having one of the machines to determine the contour of the corset—that is, the swell of the breast and hip, and the other the weaving of the pockets for the bones stopped off at different distances from the upper edge of the corset in the act of weaving?

A. It is utterly impossible.

10. Q. Give your reasons for the last answer.

A. A corset consists of 16 parts; of which often 15 do not work; and if shafts were used, it would be necessary to use 16 times 4 shafts, which is not possible, either in the hand or power loom.

106 Cross-examination waived.

FREDR. MENGEL.

Sworn and subscribed to before me this 2d February, 1874.

E. G. THOMPSON,
Examiner.

Adjourned to February 3, 1874, at 11 a. m.

NEW YORK, *February 3d*, 1874—11 a. m.

Present: Counsel for both parties.

LOUISE HILPMANN, a witness produced on the part of the complainant, being first duly sworn, in answer to interrogatories propounded by Mr. Keller, says:

1. Q. What is your name and occupation?

A. Louisa Hilpman; I am engaged in the weaving business.

2. Q. Are you in the employ of the United States Corset Company; and, if so, in what capacity?

A. I am. When corsets are finished, I examine them to see that they are all in order.

3. Q. Have you ever done any weaving there?

A. Yes, sir.

4. Q. Do you remember weaving some corsets there on a loom which had two Jacquards?

A. Yes, sir.

5. Q. State how long it took you to weave the first corset on that loom.

A. About three-quarters of an hour.

6. Q. How many corsets altogether have been woven on that loom since it had two Jacquards?

A. Four.

7. Q. Was anybody, and, if so, who, engaged on any part of the machinery during the time you were weaving the first corset on it?

A. I was weaving on it, and a young man named Gus. Merrin-
107 ger was changing the Jacquards while I was weaving.

8. Q. How long did it take to weave the four corsets on that loom?

A. About five hours, I think.

9. Q. If you know, how many corsets are woven per day on the other looms?

A. Six or seven dozen; four at a time on each loom.

And being cross-examined by Mr. Witter, counsel with defendants, says:

10. X Q. Was the change you have spoken of in your answer to question 7 anything more than the changing of a bolt from one arm to another by Gus. Merringer, so as to start either one Jacquard or another?

A. He just changed it so after one Jacquard was through to make the other one run.

11. X Q. When a new loom is started, with new cords in the Jacquards, does it not always take longer to weave goods than after they have been running awhile?

A. Yes, sir.

12. X Q. Did any of the cords of those Jacquards get tangled up while you were weaving?

A. No, sir.

13. X Q. Could you have woven four widths of a fabric as well as one, if there had been double Jacquards to each?

A. Yes, sir.

14. X Q. If the cords had been drawn into the four gangs, from the other Jacquard, and the cards cut, so as to allow the two Jacquards to run all the time, could you not have made as many corsets on that loom as on any other loom in the mill?

A. Yes, sir.

15. X Q. Did you find any more trouble in drawing in the ends in making those corsets with two Jacquards than you would if there had only been one Jacquard?

(Objected to.)

A. I did not.

108 16. X Q. Were the corsets which you wove on that loom with two Jacquards good average corsets?

A. Yes, sir.

And being further examined by Mr. Keller, says:

17. Re-d. Q. Did any of the warp-threads break while you were weaving the first corset?

A. Yes.

18. Re-d. Q. How many?

A. About seven.

19. Re-d. Q. How often have you operated any of the other looms just after they had been mounted?

A. If you mean in this place where I am now, about sixteen.

20. Re-d. Q. How much longer did it take you to weave the first corset on any of those sixteen, than it did after the loom had been started some time?

A. About ten minutes.

21. Re-d. Q. If the loom had been mounted with two Jacquards for each of the four widths of cloth, would it require the one man four times as long to shift the bolt from one Jacquard to the other than it did in the one on which you wove those corsets?

A. No, sir; it would not.

22. Re-d. Q. Why not?

A. Because there are no more Jacquards there than two.

23. Re-d. Q. Then the cords from the two Jacquards would have had to connect with the four sets of warps, would they not?

A. Please explain that for me; I do not know what you mean.

24. Re-d. Q. As the loom was mounted, the cords of the two Jacquards connected with and operated only with the warps for one width of cloth; if the loom had been mounted so as to operate for four sets of warps for weaving of four corsets at the same time, would it not have been necessary to connect the cords of the two Jacquards with the four sets of warps—there being one set of warps for each of the four widths of cloth to be woven?

109 (Objected to as so unintelligible, by reason of verbiage, to be properly apprehended; this objection is made because, after repeated reading of the question, the witness does not, to defendant's counsel, seem to understand it.

Plaintiff's counsel objects to the objection, in view of the fact that the witness is in the employ of the defendant.)

A. Yes, sir.

And being further cross-examined by Mr. Witter, says:

25. X X Q. In starting some of these sixteen looms, did it not often take as much as half a day before you produced the first perfect corset?

A. No, sir; it did not.

26. X X Q. I mean when the loom was a new loom, and first started. After being corded, do you not have to run a loom sometimes on plain goods before you dare to put it into a corset?

A. Yes, sir; sometimes.

And being further examined by Mr. Keller, says:

27. Re-d. Q. The loom on which you wove the four corsets, having two Jacquards, was it not a loom which had been previously used for weaving corsets?

A. Yes, sir.

28. Re-d. Q. Was any other alteration made in the loom than simply adding a second Jacquard, and connecting the cords of this added Jacquard to the cords of the Jacquard previously employed in that loom?

A. No, sir; there was not.

LOUISE HILPMAN.

Subscribed and sworn to this 3rd of February, 1874.

E. G. THOMPSON,
Examiner.

110 JOHN BAER, a witness heretofore produced by the complainant, being recalled, in answer to interrogatories propounded by Mr. Keller, says:

1. Q. Have you before been examined in this case?

A. Yes,

2. Q. Do you remember a visit made to you by James Lyall, in company with C. R. Saatweber, in or about the month of November last?

A. Yes.

3. Q. Did Mr. Lyall then show you Mr. Cohn's patent for the corset; and, if yea, did you understand what was claimed in that patent as the invention of Mr. Cohn, the plaintiff?

A. No; at another visit he showed me an English patent.

4. Q. Did you tell him, at the first interview, or to Saatweber, in Mr. Lyall's presence, that corsets had been woven in Morrisania, in the Convex Weaving Company's factory, in which the pockets were stopped off near the upper edge by the weaving?

A. No, sir; I said we had made 100 bones, but not that.

5. Q. Did you ever tell C. R. Saatweber or George E. Gregersen, at any time, that corsets had been woven at the factory of the Convex Weaving Company with the pockets stopped off near the upper edge, by weaving?

A. I could not have said it, because we never did it. Saatweber told me Cohn had a patent for the whalebone pockets, and I understood from him that Mr. Cohn's patent was to make figures and diamonds on the whalebone, the same as we had done at Morrisania.

6. Q. Do you understand and speak the English language freely and accurately?

A. No, sir.

7. Q. At any of the interviews which Saatweber had with you on this subject, did he, in any manner, offer or intimate to you that you could be well paid if you testified for the defendant in this suit?

(Objected to as leading. Question withdrawn.)

111 8. Q. At any of the interviews which you had on this subject, at which Saatweber was present, was anything said to you about money or compensation if you would testify in this case?

A. Well, Saatweber, when he was at my place with Lyall, intimated to me with his hand, as he went out of the door, "I should come down; I could earn money."

(Defendant's counsel objects to the quotation-mark in the above answer as not of the witness.

The interpreter certifies that the quotation-marks were affixed by him to denote the language used by Saatweber as given to him by this witness.)

9. Q. Are you in any way interested in, or connected with, either the manufacture or sale of corsets?

A. No; nothing at all.

10. Q. What business are you engaged in at present, and prior to August last past?

A. I have now a butter and cheese store, and prior to last August I worked at my trade, weaving.

11. Q. At any of the interviews in which G. E. Gregersen was present, was anything said or intimated about compensation for your testifying in this suit; and, if so, what was it, and by whom?

A. Well, Mr. Gregersen came up to my place and said Mr. Lyall sent him to request me to come down to his (Mr. Lyall's) factory, and I should never regret it if I would say that that was so made in the Convex

Weaving Company; he (Gregersen) knew that a few hundred dollars would make no difference to Mr. Lyall.

Cross-examination waived.

JOHN BAER.

Sworn and subscribed to this 3d day of Feb., 1874.

Adjourned to February 4, 1874, at 11 a. m.

112 NEW YORK, *February* 7, 1874—11 a. m.

Present, counsel for both parties.

And the witness, G. ZORN, being recalled on the part of the complainant, in answer to interrogatories propounded by Mr. Keller, says:

1. Q. Have you before been examined in this case?

A. Yes.

2. Q. Look at the diagram, Exhibit Gilroy, and state whether you have ever seen a loom mounted as indicated by that diagram; and, if so, when and where.

A. In Elberfeld, at Mr. Mandt's. I mounted such looms myself, and made the designs and cards for them.

3. Q. What kind of goods were woven with looms so mounted?

A. Lace curtains, (interschlüngene arbeit.)

4. Q. Were there two Jacquards in such mounting?

A. Yes; two Jacquards.

5. Q. To what were the cords for the small Jacquard connected?

A. On the same warp thread with the first Jacquard. The first Jacquard, on the left-hand side, has 32 hooks. On each hook are connected 4 cords, and each hook repeats 4 times. These cords run through the cumber-board, which, for each repeat, has 32 holes, and on each cord there is a small mail. On each cord is a weight fastened, which, according to the Prussian weights, is 1½ oz. The entire cumber-board has four times 32 holes. The second Jacquard, on the right-hand side, has eight hooks. On each hook there are four cords, and each cord of each hook in each repeat operates once; and on each cord there is an eye, without any weight, and is connected with the same warp thread as in the first Jacquard, No. 1. The small Jacquard is No. 2. The first Jacquard, No. 1, on the left-hand side, lifts 1½ inch; the other, on the right-hand side, No. 2, lifts a half inch higher than the Jacquard No. 1, that is, two inches. The cords of the small Jacquard, No. 2, go in front of the cumber-board. In front of the cumber-board is a reed which is from 5½ to 6 inches high. This reed moves from left to right, and
113 from right to left, to such a distance as the designs for the fabric demand.

6. Q. What is the object of moving the reed, which you have named, from right to left, and lifting the warps by the small Jacquard, No. 2, higher than by the main Jacquard?

A. To effect a sling, (schlinge;) when the small Jacquard lifts a half-inch higher than the other Jacquard, and the reed moves from the left to the right, or from right to left, it brings the warp thread to another place in a reed.

7. Q. Was there more than one reed in such looms?

A. There were two reeds; the first reed, which I have referred to, is closed on the top and on the bottom; the second reed is in front of the other, and is open on the top and closed at the bottom, and is from 2 to 2½ inches high.

8. Q. State what is the motion of the reed from right to left relatively to the lifting motion of the small Jacquard, No. 2, which precedes the other in time—the motion of the reed, or the lifting of the warps by the small Jacquard, No. 2.

A. The lifting by the Jacquard; and during the time the warp goes is lifted up, and has reached its proper place, the reed moves from right to left.

9. Q. State at what time and at what part of the movement the shuttle moves across with the weft thread.

A. When the warp has its right shed.

10. Q. State how the warp threads and the weft or shuttle threads are interlaced in such fabrics.

A. When both the Jacquards are working, the small one lifts a half-inch higher than the other, and the threads, which are to be interlaced, are brought by the movement of the large reed and the higher lift, on another place in the small reed, which is determined by the cards of the small Jacquard; then, when the shuttle goes through, the pick unites with the interlacing.

11. Q. In the looms of that kind which you mounted, how far back of the rear reed were the mails connected with the small Jacquard, No. 2?

A. Five and a half to six inches in the warp.

114 12. Q. Could a corset be practically woven with one Jacquard to produce the contour of the corset, and another Jacquard to operate shafts to form the double cloth for the whalebone pockets, and the single cloth to stop off the pockets at variable distances, from the upper edge; and, if not, why not? Give your reasons.

A. It is not possible, because the shafts take up too much room to make a proper shed, so that the shuttle can pass through.

13. Q. Look at the corset Plaintiff's Exhibit Eliot No. 1, and state how many shafts would be required in a loom to weave the double cloth forming the whalebone pocket in that corset, and the single cloth for the stopping off of the pocket?

A. For the double cloth I use eight shafts for one and the same length of pockets, and ten for the single.

14. Q. How many shafts would that make in view of the difference in the lengths of the pockets? How many shafts would that require for the half of a corset?

A. I find four different lengths, and that would require 72 (seventy-two) shafts.

15. Q. Why would it not be practicable to use shafts in a loom for that purpose? and, in giving your reasons, refer to any model in illustration that you desire.

A. It is emphatically not possible, because it does not give a shed to allow the shuttle to pass through. (Complainant's exhibit "Zorn model," offered in evidence, E. G. T., ex'r.) The first shaft, which I mark "A," gives the right shed; the end shaft, which I mark "B," is also to make the same shed, which any one can see is not possible, and in fact does not do it. The shuttle should pass under the warp from the rear shaft B, which it cannot do, because there is no shed, and the Jacquard would never bring about a shed.

16. Q. Look at the Exhibit Johnson, No. 2, and state whether, at the time that was woven, the warps were properly or improperly operated.

A. They were not properly operated; there are more than one hundred places that are not properly operated.

115 17. Q. Do you know where the corset Plaintiff's Exhibit Elliot No. 1 was woven?

A. At Mr. Cohn's factory, in Twenty-sixth street.

And being cross-examined by Mr. Witter, says:

18. X Q. State how the cords in the double Jacquard loom, which you mounted at Elberfeld, passed through the cumber-board? Did they pass through the cumber-board in a straight line or diagonally? By a straight line I mean one directly behind the other, in the view of the person standing in front of the loom.

A. It depended on what the pattern was; sometimes straight, sometimes diagonally; according to how the cords should be arranged in the harness.

19. X Q. Did you, on those looms, operate both the Jacquards together, as well as each of them separately?

A. I have always worked them together.

20. X Q. How were the cards cut, so that both Jacquards should, at the same time, operate upon warp-threads of the fabric?

A. Of both Jacquards; where there were holes made in the cards the warp-threads were lifted, and where there were no holes the warps were not lifted.

21. X Q. Then, if there were holes at a given time, for lifting the warps by one Jacquard, and no holes for lifting warps at that time for the other Jacquard, would both Jacquards be operating on the warp at the same moment?

A. The first Jacquard, or main Jacquard, lifts the warps, which it should, nothwithstanding there are no holes in the cards the second Jacquard operates. The first Jacquard will keep lifted the warps, because the cords of both Jacquards are connected on the same warp-threads.

22. X Q. What is the second Jacquard doing at the moment that the cords of the first Jacquard are lifting the warps?

A. The first works at the figure, and the other operates only at the places where I desire to make a connection at the same moment.

116 23. X Q. Then they were not both operating at every moment and simultaneously, were they?

(Objected to as assuming directly the reverse of what the witness has testified.)

A. Yes; certainly.

24. X Q. Did one Jacquard lift certain warps while the other Jacquard was lifting certain other warps at the same moment?

A. Yes.

25. X Q. Did you have a set of cards for each Jacquard?

A. Different cards for each Jacquard.

26. X Q. Do you mean by that a different set of cards for each Jacquard?

A. Different sets.

27. X Q. Would there be any difficulty in so punching the cards that the one Jacquard would operate at one time and one at another? and, if so, state what that difficulty would be.

A. The two Jacquards operate together, and it is not difficult.

28. X Q. Would there be any difficulty in punching the cards so that one Jacquard should operate on certain warp-threads at one time, and the other Jacquard operate on the same warp-threads at another time? If there would, state fully what that difficulty would be.

A. No; that is not hard.

29. X Q. Is it not true that the higher you lift the shafts in exhibit "Zorn model," the wider the shed will be open?

A. The higher I lift the shaft the wider will be the shed.

30. X Q. Suppose you make those shafts twice as thick; it would take up twice as much room, would it not?

A. That is an old story.

31. X Q. What do you mean by story; do you mean that it would take up twice as much room, or that it would not?

A. It will take twice as much room.

117 32. X Q. Suppose they were half as thick as they are in that exhibit, would they not take up half as much room?

A. Half as much room; the shafts would be too weak to operate, and would be contrary to the rules of weaving.

33. X Q. That would depend on what material they were made of, whether they would be too weak or not; and state, also, what rules they would be contrary to.

A. I have never seen any other than those of wood; the shafts must be a quarter of an inch thick to pass the warp-threads through the eyes readily.

34. X Q. Through the eyes of what?

A. Through a "litze."

35. X Q. I do not understand what a "litze" is; will you make it plain to me and to the court?

A. I designate it by attaching a piece of paper marked "Litze Zorn."

36. X Q. How many warp-threads go through one of those eyes?

A. One.

37. X Q. How many shafts would be required to weave a pocket, both sides of which are plain, and perfectly plain fabric above the pocket, where it is stopped off?

A. What method of stopping off

38. X Q. The simplest that it could be done by weaving.

A. Four for the stopping off and four for the plain part.

39. X Q. Could you not do it with six?

A. No.

40. X Q. Why not?

A. Because I could not attain the proper proportion of the whalebone; it would be wider above than below; and because I must use necessarily four for the plain part; and the upper part, above the stopping-off point, would be as wide again, if I used only two for that part.

41. X Q. How many of the shafts, according to the arrangement shown in exhibit "Zorn model" will open the shed wide enough?

118 A. Sixteen.

42. X Q. If the shafts were half the thickness that they are represented in that model, how many of them would open the shed wide enough?

A. They would be too weak; it would require 32; they would not be serviceable.

G. ZORN.

Sworn and subscribed to this 7th of February, 1874.

E. G. THOMPSON,
Examiner.

Examination adjourned till February 9, 1874, at 11 a. m.

NEW YORK, *Feb.* 9, 1874—11 a. m.

Met pursuant to adjournment. Present, counsel as before.

LOUIS LANGLOTZ, a witness heretofore produced on the part of the

complainant, being recalled by the complainant, in answer to interrogatories propounded by Mr. Keller, of counsel with complainant, deposes and says:

1. Q. Have you been examined before in this case?

A. Yes.

2. Q. What, if any, experience have you had in the working of Jacquard looms with shafts?

A. I have worked with Jacquards and with shafts at various places several times; in 1848 in Neu Dittendorf, near Erfurt, Germany, at Mr. Mattern's factory, and at Mr. Cohn's in 1869; I mounted the loom at Mr. Cohn's; there we made the figure with the large Jacquard, and the ground with the shaft.

3. Q. In the weaving of what kind of fabrics, at Cohn's, did you use shafts?

A. One part of hoop-skirts.

4. Q. Look at complainant's exhibit Zorn model, and state how
119 the size of the shafts in that model compare with the shafts which have been used, as you refer to in the looms which you have seen in operation with shafts, except as to length.

A. They are as thick as was used in shaft-work as in the looms I have referred to.

5. Q. In a loom for weaving corsets, like corset Exhibit Eliot No. 1, in which shafts would be used to determine the weaving of the double cloth for the bone-pockets, and the single cloth, beyond the stop-off of the pockets, near the upper edge of the corset, how many shafts would be required?

A. Eighteen for one, and for the four different lengths, seventy-two.

6. Q. State whether it would be practicable to use that number of shafts in one loom; and, if not, state the reason or reasons why.

A. It is so impracticable that no weaver would do it. On account of the long space which the shafts occupy, no shed could be created to permit the shuttle to pass through. And also, because, when a thread is broken, (which frequently occurs,) no weaver could draw it in again, on account of the long space which the shafts occupy.

7. Q. Examine Exhibit Johnson Corset, No. 2, and state what is the quality of its weaving.

A. It is not a good corset; it is full of faults.

8. Q. Are the defects which you find in it due to the operation of the web-threads or to the warp?

A. All the faults which I find are due to the operation of the warp.

And being cross-examined by Mr. Witter, says:

9. X Q. Will you give any good reason, if you can, why shafts of half the thickness of those represented in Exhibit Zarn Model, and made of metal, or even of wood, could not be used successfully, thus occupying no more than half the space, at most, of those in the model?

A. If the shafts are made of wood, half as thick, then they would be so weak that they would bend at all times. And if made of metal, they would also bend, and to prevent that they would have to be made too heavy.

120 10. X Q. Suppose they were made of hickory wood or ash, instead of pine, as in the model, would you make the same reply as you did in your last answer; if not, what reply do you make?

A. From practical experience, I tried more than once to work with thinner shafts, because the less room the shafts occupy the better they can be worked; and ash and hickory bend much easier in the stated thickness than pine.

11. X Q. Which way do they bend?
A. It warps.
12. X Q. Bent as if it was warped; is that what you mean?
A. It becomes crooked.
13. X Q. What makes it become crooked or bent?
A. Because it is not strong enough.
14. X Q. What makes it crooked or bent; what is the agent that makes it crooked?
(Objected to, as the witness has not been called as an expert in natural philosophy.)
A. Through the tension of the wrap, which, because the shaft is not strong enough to stand the resistance, causes the shaft to bend.
15. X Q. In what direction does the strain operate which is produced by the tension of the warp?
A. In the "Litzen"—in the heddle.
16. X Q. I do not understand German; will you make your answer sufficiently plain that I can understand it?
A. By the word "Litzen" I mean "heddle."
17. X Q. Is that the most intelligent answer you can give to X-question 15?
A. I cannot explain it better.
18. X Q. Will you state why the shafts may not be arranged, each alternate shaft above the other, so as to occupy about one-half less room?
A. The lower shafts would rub into the heddle of the upper shafts on the first day.
19. X Q. The shafts are close together in the model you represent, are they not?
121 A. Yes.
20. X Q. No more strain comes on the shafts than can be supported by the heddles, does there?
A. The model is only made to show, but not to work.
21. X Q. Consider X question 19 as referring to a working loom, and answer it.
A. Yes.
22. X Q. X-question 20 repeated with reference to a working loom.
A. No.
23. X Q. What is the reason that you could not open the shed by means of the 72d shaft, or raising it high enough? I refer to the model, or to a loom built on that principle.
A. All warp-threads on that shaft would be torn away on the first attempt to raise it high enough to open the shed.
24. X Q. Why?
A. In order to raise it high enough, the warp-threads on that shaft must be longer than those on any other shaft.
25. X Q. Will you now explain why eighteen shafts are required to make a pocket, and the single part above it, in the corset Exhibit Eliot No. 1?
A. It takes eight shafts, four of which for the lower part, and the other four for the upper part, and ten shafts for the other end where it is stopped.
26. X Q. What I want to know is, why it does.
A. Because the corset, which has been shown me (Ex. Eliot No. 1) cannot be made otherwise.
27. X Q. Is that the best reason you can give?
A. Yes, sir.

28. X Q. How many different lengths of pocket are there in this corset, (Ex. Eliot No. 1?)

A. Four.

29. X Q. You think it takes as many times eighteen shafts as there are different lengths of pocket?

A. Yes, sir.

L. LANGLOTZ.

Sworn and subscribed to this 9th day of Feb'uary, 1874.

E. G. THOMPSON,
Examiner.

122 JACOB N. MCINTIRE, being recalled on the part of the complainant, in answer to interrogatories propounded by Mr. Keller, deposes and says:

1. Q. Have you been heretofore examined in this cause?

A. I have.

2. Q. When you testified before in this case, in reference to the exhibit Johnson's Provisional Specification, had you seen and examined Gilroy's work on the art of weaving, and specially the plate, Example No. 6, entitled "Aurora Borealis Tie Up?"

A. Previous to my last testimony in this case, I had examined the work alluded to, among others, in an endeavor to learn positively whether it had been anywhere suggested to employ two Jacquards in a loom, with the warp-threads so corded to both of them that either could be used to manipulate the warp-thread at different times. During this examination I looked carefully at all the plates in this work, including, of course, the plate referred to in the question.

3. Q. Does that plate indicate to your mind any mode of employing two Jacquards, so as to weave a corset—one Jacquard to give the contour, and the other the whalebone pockets, stopped off at the irregular distances required from the upper edge of the corset, as indicated in complainant's patent?

A. It does not; even though I have read the testimony of numerous witnesses relative to what this plate indicates, and therefore have my mind in a better condition to receive such an impression from an examination of said plate than at the time of my first observation of this drawing.

4. Q. State why not.

A. Because, in order to weave corsets with two Jacquards, as suggested in the previous question, it would be necessary to have all of the warp-threads connected to each Jacquard, and no such arrangement of warp-threads and Jacquards is shown in this plate.

5. Q. Do you find in the said plate, in Gilroy's work, Example No. 6, that the cords of one Jacquard are connected with the cords of
123 the other Jacquard, above the cumber-board, or that the cords in the two Jacquards pass together, in pairs, through the holes in the cumber-board?

A. The cords from the larger or main Jacquard on the left are represented as passing through the holes of the cumber-board, while those from the small Jacquard on the right appear to pass outside of or down by the cumber-board, and to be attached separately from those which pass through the cumber-board.

6. Q. What is the difference in the number of cords indicated in the said plate, as coming from the main Jacquard on the left, as compared with the number coming from the small Jacquard on the right?

A. The Jacquard on the left illustrates thirty-two needles, having four cords, passing from each needle to the warp; that is, there are four repeats of thirty-two cords, making in all 128; while at the small Jacquard on the right is illustrated a series of eight needles, running to the four repeats, so as to make 32 cords.

7. Q. Could a corset be woven by such a mounting of two Jacquards, one to determine the contour, and the other for forming the whalebone pockets, to be stopped off at the required irregular distance from the edge of the corset, even assuming that it would be practical, in the business of weaving, to have many of the warps connected each with two cords, one running to each Jacquard?

A. A corset could not be woven by such a mounting of two Jacquards, even assuming the practicability, as suggested in the question.

8. Q. State why not.

A. Because in weaving such a corset it is necessary, in the use of the two Jacquards, to have all of the warp threads under the control of each Jacquard, since all of the warp threads enter into the composition of the shape or contour and pockets, which contour and pockets are to be effected respectively by the said two Jacquards.

9. Q. Have you examined, and, if yea, do you understand, Rooke's improvement in the Jacquard loom, in Mechanics' Magazine, No. 662, for April 16, 1836? And, if yea, state whether you find therein described the use of two Jacquards, the cords of both of which are
124 connected with, so as to operate, the warp threads in the loom separately.

A. I have examined, and I think I understand, the improvements described in the work referred to. In this arrangement of two Jacquards, the cords of both are not so connected with the warp threads in the loom as to operate them separately. All of the warp threads are corded in the usual manner to the main Jacquard of the loom, and through loops in these cords pass a set of shafts, twenty-four in number, and a small auxiliary Jacquard is employed to lift these shafts, by means of cords passing from said small Jacquard downward, outside of the width of the warp, and to the ends of said shafts, which shafts may also be lifted by cords passing down from the main Jacquard, (and outside of the width of the warp;) said lifting-cords, and those coming from the small Jacquard, being so combined and united just above the cumberboard as that said shafts may be either lifted singly by the main Jacquard, or in threes by the smaller Jacquard.

10. Q. Before your former examination in this case, had you made a search in the state of the art, with a view to ascertain whether you could find any description of the use of two Jacquards in one loom, so connected with the warps as to admit of weaving a corset, as intimated in the Johnson provisional specification, Exhibit Johnson, No. 143—with one Jacquard to determine the contour of the corset, and the other to form the whalebone pockets, and stopping off the same, as required by complainant's patent?

A. I had made such a search, without discovering or ascertaining any description of the use of two Jacquards in one loom, so as to permit the weaving of a corset in the manner intimated in said Johnson provisional specification. All the corset-looms I have seen described or illustrated appeared to employ but one Jacquard.

Examination adjourned till February 10th, 1874, at 2 p. m.

Examination adjourned to February 13th, 1874, at 12 m.

125 NEW YORK, *February 13th*, 1874—12 m.

Met pursuant to adjournment.

Present, counsel as before.

And the witness, JACOB N. MCINTIRE, being cross-examined by Mr. Witter, of counsel with defendants, says:

11. X Q. Have you ever seen a cumber-board?

A. Yes.

12. X Q. Describe it.

A. I have seen more than one kind; the simplest or most usual cumber-board is, as the name partially indicates, a board or thin slab of wood perforated with numerous holes adapted to the passage through them of the cords, which descend from the Jacquard machine to the warp of the loom.

13. X Q. Do you consider that there is a cumber-board represented in Exhibit Gilroy? and, if you do, please indicate where it is.

A. I do consider that there is a cumber-board illustrated in this exhibit. That part of the drawing which is composed of a series of horizontal parallel lines, bounded at each end by a vertical line, and having four parallel rows of small circles, illustrates what I understand to be a cumber-board in this exhibit. To make this clearer, I would say that that part of the drawing bounded by four lines forming a rectangle, two of the angles of which are marked with the letters A and B, and the other two angles of which I now mark with A^2 and B^2, embraces what I should call an illustration of a cumber-board. In the book Gilroy, from which this exhibit is made, there are a number of these examples of "tie-ups," in about all of which is an illustration of a cumber-board, identical with the illustration in this exhibit, of what I understand to be a cumber-board; and in each and all of said other examples, this part of the illustration is designated by printed words as a "harness-board," which means the same as "cumber-board," or, as sometimes otherwise designated, "hole-board."

126 14. X Q. Do you find a board or thin slab of wood, perforated with numerous holes, represented in said Exhibit Gilroy?

A. As I have already said, that part of said exhibit embraced in the rectangle marked A, B, A^2, and B^2, represents the thing to which I referred when I used the words "slab of wood perforated with numerous holes," in explaining what I understood to be a "cumber-board."

15. X Q. What I want to know is, distinctly, whether you think there is any representation in Exhibit Gilroy "of a board, or thin slab of wood, perforated with numerous holes"—and it seems to me that that question is capable of being answered either yes or no. I cannot understand from your last answer what is meant.

A. I think my last answer is quite intelligible, and that I have already answered the question now propounded. I will, however, try to so explain myself that no misunderstanding can arise. In some of the other examples in Gilroy (take for instance No. 3) is an illustration, which is of course intended to represent a "thin slab of wood perforated with numerous holes," because it is distinctly marked "harness-board," and as this illustration so marked corresponds exactly with the "representation" in Gilroy exhibit, I do think that this exhibit represents a "board or thin slab of wood perforated with numerous holes."

16. X Q. Would you, as a designer, represent a "board or thin slab of wood perforated with numerous holes," in that manner?

A. Yes; if I wanted to employ the representation in the same manner and for the same purpose in which these illustrations in Gilroy were drawn—because nobody with any knowledge of the subject-matter

could fail to understand such a representation, and it would be about the simplest that could be made.

17. X Q. Do you think that part of the sketch you have referred to is intended for anything more than to show the relative positions which the cords would occupy to each other in passing through a cumber-board, and the points of their passage through the cumber-board; said cumber-board itself not being represented? and state, also, why that part of the sketch may not represent exactly what I have embraced in the previous part of this question, instead of representing an actual cumber-board.

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A. What I think as to the substance of this question I have already several times stated. I will try to restate my thoughts more intelligibly, if possible. I think that the relative positions which the cords would occupy to each other in passing through the cumber-board, and the points of their passage through the cumber-board, is just exactly what that part of the sketch I have referred to is intended to show. This part of the sketch, therefore, intelligibly represents a cumber-board, and how said cords pass through the holes thereof in certain relative positions. I should not say that this illustration was a correct drawing in detail of a cumber-board, neither is there any correct drawing in this exhibit of the Jacquard hooks. The whole sketch is merely illustrative by lines and points; but it as clearly and distinctly illustrates, by a plane pierced with numerous holes, the cumber-board as it does the Jacquards and the hooks.

18 X Q. Supposing an actual cumber-board to be represented, what do the horizontal parallel lines in the part of the sketch you have referred to represent, and what is the object of any such thing as that in an actual cumber-board?

A. I suppose they represent horizontal lines. I don't know that I ever saw such horizontal lines drawn on "an actual cumber-board." I presume they were drawn here, as they would be in a diagram, for the purpose of fixing the location of the points through which the cords pass.

19 X Q. Why, in your opinion, are the points of intersection of the cords with what you term the cumber-board represented as in diagonal lines; they are not so placed in actual cumber-boards, are they?

A. For the very simple and obvious purposes of illustration. The perforated plane, corresponding to the surface of the cumber-board, being illustrated, as it were, in perspective, so as to bring to the view of the eye each and every one of the vertical lines which illustrate the cords descending from each and every one of the holes through which said cords are supposed to pass.

20 X Q. Why is not the cumber-board represented with its ends at the right and left hand, with the same diagonal inclination, if you can give any reason for that?

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A. Simply because in such an illustrative sketch the draughtsman would naturally end the figure with the vertical lines by which it is bound, said vertical lines simply forming the limits within which are illustrated the four repeats and the proposed sort of "tie-up."

21 X Q. Suppose that the said points of intersection were represented, instead of diagonally, as being directly in front of each other, (under each other in the drawing,) could you then tell to which of the cords of the left-hand Jacquard the first cord of the right-hand Jacquard was represented as being united?

A. If the points of intersection, or the holes through which the cords pass, were arranged or shown as supposed by the question, all the cords

of one repeat would have the appearance of running to one warp-thread, and you could not tell to which one of the warps a cord from each Jacquard was attached. The whole sketch would fail to convey the idea which it is intended to illustrate. The latter part of the question assumes that the cords of the two Jacquards are united. This I do not understand to be represented in the Exhibit Gilroy, to which I suppose the question refers.

22 X Q. Are not the two cords spoken of represented in the drawing as extending to and uniting at a single point?

A. There are in several instances two cords represented, running respectively from two Jacquards to a given point or small circle; but whether these cords from thence pass on separately to the warp or are at this point united, I don't believe any one could swear, or be positive, from the examination of this sketch or diagram, and without knowing all about the system of harnessing of and the kind of weaving done in the loom employing the arrangement of cords, &c., intended to be illustrated by this example.

23 X Q. Will you explain how the double part or pocket of a corset is woven by one Jacquard, as corsets are usually woven now, and both sides of the pocket of perfectly plain goods?

129 A. As I understand corsets to be woven now by one Jacquard, the double portions or pockets are produced by the warp-threads being properly lifted by the Jacquard during the insertion of the picks, so as to weave two thicknesses of cloth or goods of the proper texture.

24. X Q. How are the warp-threads properly lifted by the Jacquard so as to produce two thicknesses of cloth?

A. One portion of the threads is so manipulated as to be interlaced with the picks that enter into one portion of the material, and the other portion so as to be interlaced with the picks or weft of the other thickness of the material. So far as the character of the cloth composing each thickness is concerned, the texture is varied according to the combinations made in lifting the warp which enters into each thickness. I am not perfectly familiar with all the different kinds of texture produced by different ways of interlacing a series of picks with a series of warp-threads.

25. X Q. Look at Exhibit Eliot No. 1, and state which contains the greater number of warp-threads—the upper part of the pocket or the under part of the pocket; and as you may want a glass for that purpose, I will provide you with one.

A. As near as I can see, I find eight on one side and sixteen on the other.

26. X Q. On which side do you find the sixteen—on the outer side or the inner side of the corset, and on which side the eight?

A. I find the sixteen on the outside.

27. X Q. Do you know whether both sides of those pockets are woven simultaneously?

A. Yes; they are both woven at the same time, in all the corsets I ever saw woven.

28. X Q. Do you mean by that that a single pick was made upon both sides at the same time; and if you do not mean that, what do you mean?

A. I don't mean that a single pick was introduced simultaneously into both thicknesses or sides of the pocket, and I don't think anybody with any sense would infer any such meaning from my answer. It is usual to have only one shed, and it would be impossible to insert

130 a pick so as to interlace at the same time with both portions of the warp, and at the same time weave two thicknesses, or to pro-

duce a pocket. I think any one would understand that I meant by my answer that the weaving of both thicknesses of material was commenced, continued, and ended about together, and was performed simultaneously with the production of the single thickness of material at the end of the pocket.

29. X Q. Do you understand that a pick is made upon one side of the pocket and then on the other, and so on alternately until the pocket is finished?

A. I understand that the insertion of the picks or weft is divided, so as to be put partially into the one side and partially into the other.

30. X Q. Cross-question 29 repeated.

A. I am not positive as to whether the division of picks between the two portions of the pockets is exactly equal, or whether they exactly alternate; but these conditions appear to exist in the corsets I have looked at.

31. X Q. Do you see any difficulty in having the warp-threads so divided that any desirable number thereof shall enter into the lower side of the pocket, and the rest into the upper side, or vice versa?

A. I should not suppose there would be any difficulty in having the division of warp-threads such that any desirable number should enter into the composition of each portion of the pocket. I presume that the division, however, should be such as to effect the pocket of proper strength, and one which would present a desirable appearance on the face of the corset.

32. X Q. You say, in your answer to the fourth question of the last examination, that in order to weave corsets with two Jacquards, as suggested in the previous question, it would be necessary to have all the warp-threads connected to each Jacquard. Will you state how you are able to arrive at that conclusion?

A. I was able to arrive at this conclusion because it seemed an inevitable one to me. I explained, in my previous testimony, why it was necessary, in weaving corsets with two Jacquards, as intimated
131 in the Johnson provisional specification, to have all the warp-threads connected to each Jacquard.

33. X Q. I would like to have you give here your reasons for the conclusions stated in your answer to the fourth question of the present examination, viz: Why it is necessary, in order to weave corsets with two Jacquards, as suggested in question three, that all the warp-threads should be connected with each Jacquard?

A. I can only reiterate the reasons given in my previous testimony, viz: that since the Johnson specification requires the formation of the pocket by the use of one Jacquard, and that of the other portion, or shape of the corset, by the use of another Jacquard, and as all the same warp-threads which enter into the composition of one of such parts also enter into the composition of the other, it would be imperatively necessary to have connections between each of said warp-threads and both of said Jacquards.

34. X Q. Supposing that the Jacquard which makes the contour makes also that part of the corset above the pocket, while the other Jacquard makes only the two sides 'f the pocket, then would it be necessary that all of the warp-threads should be connected with each Jacquard?

A. In the first place, this supposition does not seem to me to be embraced in the Johnson specification, because it is really those portions which lay between the pockets, and also between the parts above the pockets, in which the convexity or shaping alluded to occurs. In the case thus supposed, however, I don't think it would be necessary to have

those warp-threads, which never entered into the composition of any one of the pockets, connected to both Jacquards.

35. X Q. Will you state what you find in the English specification of Johnson which is inconsistent with the Jacquard, which weaves the contour, weaving also the single part above the pockets?

A. I don't know that there is anything in this provisional specification really inconsistent with this supposition. There is certainly nothing here to indicate positively the weaving of the single part above
132 the pockets, by means of the same Jacquard, which effects the contour or shape. Johnson does say that "these slots or double portions are made simultaneously with the single parts of the corsets;" and, if this means anything, it indicates that the pockets and the parts above the pockets are woven at the same time, and it is reasonable to suppose that the same Jacquard would be used to lift all the warp during this simultaneous weaving of double and single parts.

36. X Q. Is it not more reasonable to suppose that one Jacquard shall weave the pockets only, and the other Jacquard weave simultaneously the single parts above them, and especially so since that specification assigns as the work of one Jacquard "the formation of the double portions or slots," and does not say that that Jacquard is to make the single portion above the pockets, but only that those parts are to be woven simultaneously with th' double portions or slots; and if not more reasonable, why not?

A. No; I don't think it is any more reasonable. I don't see that the reasonableness of the proposition is material, one way or the other.

37. X Q. Have you now given the best reasons that you have for thinking that the interpretation mentioned in the thirty-sixth cross-question is not more reasonable than the one you have given in answer to the cross-question thirty-five? And if you have not, give any reasons which you are able to.

A. This provisional specification is not very full or explicit any way, and since it distinctly says that one Jacquard is to effect the shape or contour, (by which I understand the convexity of the weaving,) and the other to effect the formation of the double portions, thus failing to state which one of the two is to be instrumental in the formation of the single parts above the pockets, I don't see that it is any more reasonable to assume that one of these Jacquards was instrumental in the formation of the last-mentioned part, than to suppose that the other one was.

Adjourned to February 14th, 1874, at 11½ a. m.

133 NEW YORK, *February* 14, 1874—11.30 a. m.

Met pursuant to adjournment.

Present: Counsel as before.

And the witness J. N. MCINTIRE, being further cross-examined by Mr. Witter, says:

38. X Q. Does not a single Jacquard control all the warp-threads and weave both sides of the pockets in Cohn's corset like Exhibit Eliot?

A. Yes, sir.

39. X Q. Why will not a second Jacquard take care of the warp-threads which form the bottoms of the pockets, and the first Jacquard form all the rest of the corset? I mean by the bottom of the pocket, the side nearest the body when worn. Please to give all the reasons that you can in reply to this question.

A. I don't see any reason why a loom could not be rigged up to accom-

plish the purpose explained in the question, with the use of two Jacquards; but I have never seen or heard of such an arrangement, and I am not practically experienced enough in the subject of weaving of corsets to know whether or not any practical difficulties might be encountered in such proposed contrivance.

40. X Q. Please to state any reasons, that you may be able to, why the bottoms of those pockets might not be woven by a second Jacquard through the intervention of shafts, as set forth in Rooke's improvement, as set forth in Exhibit Mechanics' Magazine—the first Jacquard, as in the previous question, doing all the rest of the work?

(Objected to; the witness not having been examined in chief in any matter to which this is responsive—no evidence having been put in by the defendants in making out their case against the plaintiff's patent tending to prove that a corset ever had been or could be woven in a loom, with shafts to form that portion of the double pocket in a
134 corset next to the body when worn, and the Jacquard to determine all the rest; and no evidence having been offered on part of the plaintiff bearing upon that subject, it is incompetent to be now opened on part of the defendant.)

A. I don't see why the bottom of the pockets of a corset might not be woven through the instrumentality of shafts arranged to properly lift that part of the warp which enters into said bottoms, said shafts being lifted by an auxiliary Jacquard, as shown in Rooke's improvement, unless by reason of a complication of the mechanism; a loom so rigged would not be practically successful. I do not, however, understand Rooke's improvement as embracing any such thing as is assumed in the question. I understand that in Rooke's improvement the warp-threads, which are operated upon by the shafts, enter into the composition of the material throughout; while the question assumes that the shafts are to operate upon the warp only where a pocket occurs.

41. X Q. Under the cases stated in cross-questions 39 and 40, it would not be necessary or possible to have all the warp-threads connected with both Jacquards, would it? Please answer, first, whether it would be necessary, and second, whether it would be possible.

A. In the case supposed in cross-question 39, it would be necessary to have all the warp-threads, which were connected to the Jacquard for effecting the bottom of the pocket, connected also to the Jacquard used for effecting the other portions of the corset, because said warp-threads all enter into the composition of both parts of the corset. It is possible to effect this necessary arrangement, I believe, because I have seen in the testimony that the defendants have rigged up and worked a corset-loom with the warp-threads corded to two Jacquards.

In the case assumed in cross-question 40, I am not sure whether it would be necessary to have the warp-threads, which were operated by the shafts and one Jacquard, connected also to the other Jacquard; but it would be quite possible to have them so connected.

42. X Q. You have said in substance, that while the cords from
135 one Jacquard in Exhibit Gilroy passed through what you think is the cumber-board, those of the other seem to pass over or by it. Will you please to state what difference that would make in the operation of the two Jacquards?

A. It would not make any difference in the operation of the Jacquard machines.

43. X Q. What difference would it make in the result, or finished work, if any?

A. Whether it would make any difference, would be dependent upon

all the surrounding circumstances. I don't see that the question points out two things, between which to draw a comparison.

44. X Q. Do you think it necessary, in weaving a corset by two Jacquards, that the warp-threads shall be lifted separately?

A. Whether it is necessary or not depends on how the Jacquards are arranged and operated, with reference to the harnessing and warps of the loom. I don't know that I quite understand what you mean by lifting the warp-threads separately.

45. X Q. Supposing all the warp-threads are corded to each of two Jacquards, do you see any difficulty in having both Jacquards operate continuously and simultaneously during the whole time of the manufacture?

A. I have never seen or heard of a loom rigged with the Jacquards so as to accomplish this, except the one rigged up by defendants; but I should think that in a loom so rigged up there would be no difficulty in having both Jacquards operate continuously, assuming that the cards were properly punched to permit it.

And being further examined by Mr. Keller, says:

46. Re-d. Q. If the loom be so mounted that the cords of one Jacquard are connected with the warps to determine the contour of the corset, and its cards cut accordingly, and the other Jacquard is connected with the warps so as to form the pockets, and its cards cut for that purpose, would there then be any difficulty in operating the two Jacquards simultaneously in weaving a corset?

A. In a loom so mounted, if the cards of each Jacquard were cut
136 according to the effect to be produced by each of said Jacquards, said Jacquards could not of course operate at the same time, because the two effects, supposed in the question, occur separately and at different times.

And being further cross-examined by Mr. Witter, says:

47. X Q. Do you consider that a Jacquard operates in a case where the cards, at a given time, have no holes in them whatever—that is, are blank cards?

A. I should not say the Jacquard was operating when none of its hooks were being lifted.

J. N. McINTIRE.

Sworn and subscribed to this 14th day of February, A. D. 1874.

E. G. THOMPSON, *Examiner.*

Counsel for defendants here says as follows:

If the complainant or his counsel has any doubt about the corset Exhibit Johnson being a good marketable corset, or about the arrangement of the loom by which it was woven being suitable to weave good corsets, defendant's counsel hopes they will accept the following offer:

The defendants offer to weave any number of good merchantable corsets which the complainant may require, in presence of the complainant, his counsel, and his expert, on the same loom, with two Jacquards, on which Exhibit Johnson was woven, and to put them in evidence in this case, all provided the time is extended four days for that purpose.

Counsel for complainant, with the highest regard for the defendants' counsel, respectfully declines the above offer.

137 Circuit court of the United States for the southern district of New York.

In equity.

MORITZ COHN
vs.
THE UNITED STATES CORSET COMPANY, J. H. Lane, and William Lyall.

Proofs for final hearing taken on the part of the defendants in the above cause under and pursuant to the 67th rule in equity—as amended, before Joseph Gutman, jr., examiner.

NEW YORK, *November* 17, 1873—11 a. m.

Present: George Gifford, esq., and Wm. C. Witter, esq., counsel for defendants, and Chas. M. Keller, esq., counsel for complainant.

CHARLES ROBERT SAATWEBER, a witness of lawful age, produced on the part of the defendants, having been by me first duly cautioned and sworn to testify the truth, the whole truth, and nothing but the
138 truth, in the matter of controversy herein, and being examined by Mr. Witter of counsel for defendants, herein deposes and says as follows:

Q. 1. What is your name, age, residence, and occupation?

A. My name is Charles Robert Saatweber; I am 34 years old; I live in Twenty-first street, in the city of New York; I am foreman in the corset-manufacturing business.

Q. 2. For whom are you foreman?

A. For the United States Corset Company.

Q. 3. How long have you been occupied or employed about the manufacture of corsets?

A. Since September, 1870.

Q. 4. In whose employ were you in September, 1870, and how long did you continue in his employ?

A. In Mr. Moritz Cohn's; about a year and a half.

Q. 5. How do you remember that you went there in September, 1870?

A. I left Wooster street on the 2d of September—or the day they took the Emperor Napoleon prisoner at Sedan. In about a week and a half after that I went with Mr. Cohn.

Q. 6. What were your duties when you first went into the employ of Mr. Cohn, the complainant?

A. I had to fix the looms.

Q. 7. How many and what kind of looms were in use when you went there in September, 1870?

139 A. Corset-looms, with Jacquards: I think between eight and twelve looms; I can't say exactly how many.

Q. 8. Were they in use weaving corsets, when you went there?

A. Yes, sir.

Q. 9. What kind of corsets were being woven upon these looms at this time, namely, in September, 1870?

A. We called them sixteen-bone corsets.

Q. 10. Will you please to describe those corsets, as well as you are able?

A. We wove corsets with bones in them, and stops in the whalebone-pockets.

Q. 11. What was the use of the pockets; for what were they used?
A. To put in bone.
Q. 12. Describe the location of these pockets.
A. The pockets were open at the bottom and stopped somewheres near the edge; open on the hip-side and stopped on the upper side.
Q. 13. Was each pocket rounded at its end, or pointed or square—how as to that?
A. Stopped square off.
Q. 14. Were these pockets all stopped at the same height?
(Objected to as leading.)
A. Different lengths, or different distances.
Q. 15. Explain, a little, what you mean by that.
140 A. I mean, by that, they stopped the pockets according to the shape.
Q. 16. Did these pockets when so stopped, as you have said, require to be sewed afterward to determine where the bones should stop?
A. No.
Q. 17. State how long such corsets were continned to be woven there, if you know.
A. Well, as long as I was there.
Q. 18. About what quantity were woven per day, or per week, during the months of, say, September, October, and November, of the year 1870?
A. About two dozen on a loom, every day.
Q. 19. How long did you continue to be loom-fixer?
A. I can't say that exactly; I think it was about a year after that I became foreman; Mr. Cohn's books, I think, will show.
Q. 20. Suppose you should make a corset, in which the pockets were all stopped off on a uniform line, what sort of a corset would that make?
A. I think that would make no good-shaped corset; no lady would buy that kind of a corset at all.
Q. 21. What was done with these corsets made as you have described, previous, say, to January, 1871?
A. I brought them, or sent them, down stairs to the laundry or bleachery, and they got bleached up and finished there.
Q. 22. What was then done with them?
A. They were sent up stairs, put on a bust, finished and boxed up.
141 Q. 23. Were they good, merchantable corsets?
A. Well, if they were woven perfectly they were good; there may have been a few of them imperfectly woven.
Q. 24. What was done with the corsets that were imperfect?
A. They were put away as second or third qualities.
Q. 25. Is that a common practice in the manufacture of corsets to this day?
A. Yes, sir; as far as I know.
Q. 26. Who determines where the pockets, in the manufacture of corsets in which the pockets are stopped in the weaving—who determines where the pockets shall be stopped?
A. I do that; according to the shape we want to get them cut.
Q. 27. How do you do it?
A. I figure it out, by my pattern, how far I will go down to stop the pocket, or leave it higher up, and then cut the cards for it.
Q. 28. What cards do you mean?
A. I mean the cards for the Jacquard, to form the pocket.
Q. 29. Was that the manner in which it was determined where to stop

the pockets in those corsets, made at Mr. Cohn's factory as you have described?

A. I don't know what their order was; all I can say is, that their pockets were woven at different lengths.

142 Q. 30. If you found a pocket stopped off at a given point on a corset, and you wanted to stop it off at a different point, higher or lower, what would you do?

A. I had to alter the cards to give the right length.

Q. 31. Look at the corset marked "Complainant's Exhibit, Cohn No. 2," and state whether the pockets of those corsets made as you have described, during the months of September, October, and November, 1870, had the pockets stopped off at different distances, substantially the same as that exhibit, or substantially different?

A. Well, that's about the same.

CHARLES ROBERT SAATWEBER.

Subscribed and sworn to before me this 17th November, 1873.

JOSEPH GUTMAN, JR.,
Examiner, &c.

GEORGE JENS GREGERSEN, a witness of lawful age, produced on the part of the defendants, having been by me first duly cautioned and sworn to testify the truth, the whole truth, and nothing but the truth, in the matter of controversy herein, and being examined by Mr. Witter, of counsel for defendants, deposes and says as follows:

Q. 1. What is your name, age, residence, and occupation?

A. My name is George Jens Gregersen. I am fifty years old. I reside 305 Ninth avenue, New York City. I am foreman in the finishing department of the United States Corset Company in Twenty-third street.

143 Q. 2. Have you ever been in the employ of Mr. Cohn?

A. Yes, sir.

Q. 3. When did you go into his employ?

A. I think it was in August, 1870.

Q. 4. Are you sure that it was before September?

A. Yes.

Q. 5. What was your occupation when you first went into his employ?

A. I was first in the laundry, washing corsets.

Q. 6. How long were you in the laundry, and what position did you take next?

A. I think I was about five or six weeks in the laundry, and then I took hold of the finishing.

Q. 7. What position did you occupy in the finishing department?

A. I took charge of the corsets when they came from the sewing; to the washing, and then the starching and putting them on the bust; the eyeletting and ironing; and sometimes I examined them as to the first, second, and third qualities.

Q. 8. How long were you in the employ of Mr. Cohn?

A. About a year and a half.

Q. 9. Previous to, say, December, 1870, what kind of corsets came under your supervision, in the laundry and finishing departments?

A. I had corsets in which the bones were stopped in by the Jacquard, and corsets in which the bones were stopped in by sewing.

144 Q. 10. What do you mean by where the bones were stopped in?

A. Where the bones are stopped in by weaving it requires no sewing; it saves the hand-work—the expenses.

Q. 11. Did the weaving or the sewing take place upon the bones or upon the pockets where the bones were to be put?

A. The stopping in the weaving, as the stopping in the sewing, is to be done according to the shape of the corset.

Q. 12. What is it that is stopped in the weaving, the pocket or the bone?

A. It is the pocket that is stopped in the weaving, so that the pocket will stay in the right place at the time that the other operations are done on it.

Q. 13. State, if you remember, about how many corsets you laundried or finished, in which the pockets were stopped off by sewing, while in the employ of Mr. Cohn, between August and December, 1870.

A. I have finished about 2,000 dozen in that time; I guess a little more; finished and washed, I mean. It was only in the first time that we had them stopped off by sewing.

Q. 14. About when did you cease to have them with the pockets stopped off in sewing?

A. That was about in October—between the first and the middle of October.

Q. 15. How many corsets in which the pockets were stopped off in the weaving came under your suspervision in the laundry and finishing department, between, say, August and December, 1870?

A. About 1,500 dozen, anyhow.

145 Q. 16. Please to state how the pockets in these last corsets were located with reference to each other.

A. In different lengths, according to the shape of the corset.

Q. 17. What do you mean by different lengths?

A. When a corset is woven, and when it is to be cut, then the front pocket is to be made so far down, near down to the edge of the blanks that the corset is made from, and the top is to be stopped off at the rounding of the breast, and the other pockets that come off from the breast are to be measured of the shape of the arm-hole, and the three back bones are to be so much longer as the form of the corset requires.

Q. 18. Were these pockets then all stopped off at the same height, or at different heights relatively to each other?

A. At different heights.

Q. 19. What was done with these corsets in which the pockets were stopped off in the weaving at different heights, as you have described?

A. They were packed up in boxes, and sent away with a truck.

Q. 20. When?

A. Right away, when they were finished.

Q. 21. Did you ever have any conversation with Mr. Cohn, or he with you, on this subject? If yea, what was it, and when was it?

A. Yes, sir. Mr. Cohn told me in the last of November, 1870, to hurry up with the corsets—finish as many as I could, because he could

146 sell them as fast as he could make them, and I had to let my ironers work, in December, overtime.

Q. 22. How late did they work?

A. Till nine o'clock at night; not every day till nine o'clock.

Q. 23. Look at the exhibit—complainant's Exhibit 2—and state whether the pockets of the said corsets on which the pockets were stopped off in the weaving were stopped off substantially the same as they are in said exhibit.

A. Yes.

Q. 24. Had you ever seen corsets in which the pockets were so stopped off in the weaving previous to your employment by Mr. Cohn?

A. Oh, yes.

Q. 25. Where?

A. By the Convex Weaving Company, in Mott Haven.

Q. 26. Were you in the employ of said company?

A. Yes, sir.

Q. 26. When did you enter their employ, and how long did you remain in their employ?

A. I came there on the 6th of July, 1868, and I stayed there till the 8th of February, 1869, and then I was off for six weeks, and came back again and stopped there until the company was broken up, which, I think, was in May, 1869.

Q. 28. When, while there, did you first have anything to do with corsets in which the pockets were stopped off in the weaving, as you have described, and as shown in complainant's Exhibit 2?

147 (Objected to, as it does not appear that they were stopped off as shown in the exhibit, or as the witness has described.)

A. I can't tell exactly when, but I know that in the fall of 1868 we had corsets that were so stopped off.

Q. 29. How stopped off?

A. By the Jacquard, in the weaving.

Q. 30. At what heights were these pockets stopped off, relatively to each other?

A. At different heights, according to the shape of the corset.

Q. 31. Do you mean that they were all stopped off at one height in each corset?

A. Oh, no.

Q. 32. How many of such corsets should you think, approximately, were made in the fall of 1868?

A. Well, I can't tell how many; I think they were running only one loom there; there may have been more. I can't tell.

Q. 33. What was done with the corsets so made?

A. I sent them up-stairs to the packing room; they put the clasps in and sent them away, among the other corsets.

Q. 34. About how many corsets would a loom make in a day?

A. Well, we had sixteen looms running out there, and they made nearly fifty dozen a week in the last time. I can't say how many that loom made; anyhow, two dozen a day.

148 Q. 35. Did you superintend the laundry of these corsets?

A. Yes, sir.

Q. 36. Were they good saleable corsets?

A. Some of them were good, and some not.

Q. 37. You say, in your last answer, that some of these corsets were good and some not; what was the matter with those that were not good?

A. Among all corsets there are always some that are not good—not woven good, or something else—that have gone over to the second quality.

Q. 38. What do mean by something else?

A. Sometimes the shape is not right; sometimes, on one day, the yarn is a little fine, and sometimes a little coarse; that will make a difference in the shape of the corset when the yarn is not the same; in that case a corset cannot be finished right, and has to go to the second quality.

And being cross-examined by Mr. Keller, he says:

X Q. 39. Are you in the employ of the defendants in this suit?

A. Yes.

X Q. 40. How long after you left Mr. Cohn did you go into the employment of the defendants?

A. I guess it was about five months.

X Q. 41. You were discharged by Mr. Cohn, were you not?

A. Oh, no.

149 X Q. 42. Were you not in the pay of the defendants before you went to work there?

A. No, sir.

X Q. 43. At the time that you state you had a conversation with Mr. Cohn, did the weaving department work up to nine o'clock in the evening?

A. I can't tell; I had nothing to do with the weaving department; it was separate from my department.

X Q. 44. Was not the finishing department behind-hand—behind the weaving?

A. Yes, sir.

X Q. 45. Are you sure that you have reported that conversation accurately?

A. Yes, sir.

X Q. 46. Will you swear that he then told you that he could sell them as fast as you could finish them?

A. Yes, sir.

X Q. 47. What was the difference between the loom at Mott Haven on which you say that the pockets of the corsets were stopped in the weaving, and the other looms in which the pockets were so woven as to be stopped by sewing?

A. There was no difference between them.

X Q. 48. Did they continue at Mott Haven to weave corsets with the pockets stopped as in Exhibit 2, up to the time the company failed or stopped working?

A. I never was engaged for a weaver there.

X Q. 49. Were such corsets woven by that company, or at their establishment, up to the time that company failed or stopped manufacturing?

150 A. I told you it was in the fall that these corsets were woven, and I left in February, 1869; to that time these patterns were running, and then I came back six weeks afterward, and then I found no more corsets in which the pockets were stopped by weaving.

X Q. 50. None of the other looms were, at any time, mounted so as to weave these corsets with the pockets stopped off in the act of weaving; were they?

A. I did not see any; it may be.

X Q. 51. Did you have anything to do with the packing of the corsets at Mott Haven?

A. No, sir.

X Q. 52. How, then, did you know that these particular corsets were packed and sent away?

A. O, I often went up-stairs into the finishing-room, and took the corsets in my hands and looked them over.

X Q. 53. Which is the cheapest in the manufacture of corsets—to stop off the pockets in the act of weaving, or to stop them by sewing?

A. To stop them in the act of weaving is the cheapest.

X Q. 54. When finished, which is the best corset, the corset which has the pocket stopped off in the act of weaving, or the pocket stopped off in sewing?

A. That is a thing I can't tell; some like one, some like the other best; that is a fancy that the people take that buy them.

X Q. 55. Who did you ever hear express preference for those that are stopped by sewing?

A. I have heard several ladies in my family talking over that.

GEORGE JENS GREGERSEN.

151 Subscribed and sworn to before me this 17th of November, 1873.

JOSEPH GUTMAN, JR.,
Examiner, &c.

ROBERT WHITEHILL, a witness of lawful age, produced on the part of the defendants, having been by me first duly cautioned and sworn to testify the truth, the whole truth, and nothing but the truth in the matter of controversy herein, and being examined by Mr. Witter, of counsel for defendants, deposes and says as follows:

Q. 1. What is your name, age, residence, and occupation?

A. My name is Robert Whitehill. I am 36 years old. I reside at No. 197 Tenth avenue, New York City. I am a machinist.

Q. 2. Were you ever employed by Mr. Cohn, the complainant, in making drafts or sketches of looms or parts of looms? If yea, please state when, where, and what those sketches had reference to.

A. I never was.

Q. 3. Did you ever make any sketches or drafts at Mr. Cohn's factory? If yea, please state when and for purpose they were made.

A. I made sketches in Mr. Cohn's factory, in October, 1870, as near as I can remember, for the purpose of changing the loom that Mr. Cohn was running at that time to the positive-motion principle.

152 Q. 4. How many times were you there for that purpose in the year 1870, and how long were you ordinarily there?

A. I might have been there six or more times, and usually three hours or less.

Q. 5. What goods, if any, were those looms weaving at the various times you were there, and how many looms were there engaged in that manufacture?

A. They were weaving corsets, and I think there were twenty-six looms.

Q. 6. What sort of corsets were being woven on those looms?

A. Principally what is termed the sixteen-bone.

Q. 7. Please describe the corsets a little more particularly that you saw in process of weaving there.

A. The corset was woven with pockets and biased pieces, the pockets being stopped square off at different heights relatively to each other, as shown in complainant's Exhibit No. 2.

Q. 8. Did you hold or hear any language of Mr. Cohn regarding his market for these corsets while you were there at those times? If yea, state the substance of what he said.

A. When we went there to alter Mr. Cohn's looms, and, I think, at different times, Mr. Cohn did say, in my presence, and very pointedly urged us to have this alteration made as soon as possible; that he had more orders for his corsets than he could supply, representing, at the same time, that the only trouble with his looms was that they would not make a perfect corset.

153 Q. 9. When were these alterations completed in any of the looms?

A. In the latter part of November, 1870.

Q. 10. In what way; in what particulars did the alterations which you made drafts or sketches for, enable Mr. Cohn to make the corsets more perfect?

A. In the system of carrying the shuttle.

Q. 11. Did it have anything to do with the system of preparing the cards for the Jacquard?

A. It did not.

Q. 12. Were these looms Jacquard looms?

A. They were.

Q. 13. What does the use of the Jacquard enable the weaver to do?

A. The Jacquard machine has complete control of the warp-threads, and manipulates the same.

Q. 14. Suppose after having stopped off the pocket at any particular point, you wished to stop it off at some other point higher or lower in the corset, what is necessary to be done?

A. It is necessary to take the cards that form the pocket and replace them by others with the cards punctured in the place that you want the pocket to be stopped.

Q. 15. Please examine the document here marked for identification, (J. G., jr., Ex., &c.,) and state what sort of a corset you would make, following the directions of that document.

A. I should make a corset with the pockets, or slots, stopped square off, and at any desired height relatively to each other.

154 Q. 16. Please examine complainant's Exhibit 2, J. G., jr., Ex., &c., and state whether or not you find in that specification directions for making a corset in which the pockets are stopped off, substantially as shown in said complainant's Exhibit 2.

A. I find that in Exhibit 2, the pockets are stopped square off, at different heights relatively to each other. I would further state that I could make said corset from the directions in the specification shown me.

And being cross examined by Mr. Keller, he says:

X Q. 17. At [the time you went to Mr. Cohn's establishment to alter his looms, had you been engaged in the construction of Jacquard looms; and, if so, where, and to what extent?

A. I had; in New York, and to a limited extent.

X Q. 18. Does your last answer include the construction of the Jacquard part of the looms?

A. It does not.

X Q. 19. How many looms did you alter for Mr. Cohn at the time referred to?

A. One.

X Q. 20. Did the alterations which you made to put them in working order relate in any manner to the stopping of the pockets of the corsets?

A. The stopping of the pocket is done by the Jacquard, which I had nothing to do with.

X Q. 21. Have you ever prepared the cards for the Jacquard loom to make any given design to be produced in the fabric?

A. I have not; that is the work of little girls.

155 X Q. 22. In what establishment have you ever seen little girls arrange the order of the punching of the cards to suit any particular design? I don't mean simply to punch the holes, but to determine the order in which they shall be punched.

A. I don't understand the question.

ROBERT WHITEHILL.

Subscribed and sworn to before me this 17th day of November, 1873.
JOSEPH GUTMAN, JR.,
Examiner, &c.

KATE ROONEY, a witness of lawful age produced on the part of the defendants, having been by me first duly cautioned and sworn to testify the truth, the whole truth, and nothing but the truth, in the matter of controversy herein, and being examined by Mr. Witter, of counsel for defendants, deposes and says as follows:

Q. 1. What is your name, age, residence, and occupation?

A. My name is Kate Rooney; I am twenty years old; I live at 210 West Twenty-seventh street, New York City; I am engaged in packing corsets.

Q. 2. Were you ever in the employ of Mr. Cohn?

A. Yes.

Q. 3. When did you commence to work for him?

A. In August, 1870.

156 Q. 4. What were your duties there from August, 1870, to January, 1871.

A. I went there first to tack corsets, and after I was there two weeks I was put on the packing-table by Mr. Opper.

Q. 5. Explain what you mean by tacking corsets.

A. Putting in the bones so that I would not have to push them through.

Q. 6. What did the tacking consist of?

A. It is to keep the bones from sliding through as they would if there was no stoppage.

Q. 7. What did you do the tacking with?

A. With a needle and thread.

Q. 8. These corsets had the pockets stopped off by sewing at different heights relatively to each other?

A. Yes.

Q. 9. Did all the corsets which were made there require to be stopped off by sewing?

A. No, sir.

Q. 10. Did the others have the pockets stopped off in the weaving at different heights relatively to each other, as shown in complainant's Exhibit No. 2?

A. Yes, sir.

Q. 11. How did the corsets come to you; in what shape?

A. They came in bundles, without being bound.

Q. 12. How many of these corsets did you finish by tacking while you were there?

A. About six dozen.

157 Q. 13. How many should you think of the other kind, like Exhibit 2, previous—say to January 1, 1871?

A. From thirty to fifty dozen a day.

Q. 14. What was done with them after you were through with them?

A. They were packed and sent away out of that part of the room.

Q. 15. What, then, was done with the corsets?

A. Well, I don't know what was done with them after they took them from us; they put them on a truck and took them away.

And being cross-examined by Mr. Keller:

X Q. 16. How many persons were engaged in tacking during the time that corsets were tacked?

A. About seven girls.

X Q. 17. You say that after they were taken away from the room in which you worked, they were taken away on a truck; what do you mean by that?

A. I mean that they were taken out of the factory on a wagon, out of Mr. Cohn's store; I don't know where they were taken to.

KATIE ROONEY.

Subscribed and sworn to before me this 17th day of November, 1873.

JOSEPH GUTMAN, JR.,
Examiner, &c.

LIZZIE CONKLIN, a witness of lawful age, produced on the part
158 of the defendants, having been by me first duly cautioned and sworn to testify the truth, the whole truth, and nothing but the truth, in the matter of controversy herein, and being examined by Mr. Witter, of counsel for defendants, deposes and says:

Q. 1. What is your name, age, residence, and occupation?

A. My name is Lizzie Conklin. I am 19 years old. I reside at 258 Ninth avenue. I am in the packing department of the United States Corset Company.

Q. 2. Were you ever in the employ of Mr. Cohn?

A. I was.

Q. 3. When did you commence to work for him?

A. In August, 1870.

Q. 4. What were your duties there from August, 1870, to January, 1871?

A. I was in three different departments: first I was in the tacking room; then in the cleaning department, pulling out the basting threads, &c.; then in the packing department.

Q. 5. By tacking, you mean sewing up the pockets so as to permit the bones to be pushed in only to certain distances, do you?

A. Yes, sir.

Q. 6. And this made pockets for the bones stopped off by sewing at different heights relatively to each other?

A. Yes.

Q. 7. Were there other kinds of corsets made there, in which the pockets were stopped off in the weaving at different heights
159 relatively to each other, and as shown in Exhibit 2, continuously from the time you went there until you left.

A. There were. They were mixed together.

Q. 8. When did you leave?

A. In September, 1871.

Q. 9. About when did you stop tacking?

A. About the 1st of September, 1870.

Q. 10. How many should you think of the tacked corsets did you tack?

A. About fourteen or fifteen dozen.

Q. 11. How many of the other kind, like Exhibit 2, should you think were made there up to, say, January, 1871—how many a day?

A. I should think thirty or fifty dozen finished corsets, with the stoppage woven.

LIZZIE CONKLIN.

Subscribed and sworn to before me this 17th day of November, 1873.

JOSEPH GUTMAN, JR.,
Examiner, &c.

Examination adjourned to November 21, 1873, at 11 a. m.

NEW YORK, *November* 21, 1873—11 a. m.

Present: Counsel for the respective parties, as before.

(The defendants' counsel puts in evidence a certified copy of the
160 English specifications, which, together with the certificate of the Commissioner of Patents, is marked "Exhibit Johnson, J. G., jr., ex.")

(Exhibit Johnson is objected to, as it does not purport to be the specification of a patent granted, but only a provisional protection.)

EMIL KUNZLI, a witness of lawful age, produced on the part of the defendants, having been by me first duly cautioned and sworn to testify the truth, the whole truth, and nothing but the truth in the matter of controversy herein, and being examined by Mr. Gifford, deposes and says:

Q. 1. What is your name, age, and business; where do you live?

A. My name is Emil Kunzli. My business is a designer and card cutter. I live at 255 West Twenty-ninth street, in the city of New York. I am twenty-one years of age.

Q. 2. What do you cut cards for?

A. I cut cards for corsets.

Q. 3. What is done with those cards?

A. These cards are employed to weave the cloth in connection with the Jacquard machines.

Q. 4. Are you acquainted with weaving by the use of the Jacquard? If you are, by what means have you become so acquainted?

A. I am acquainted with it. I have been weaving on a silk Jacquard loom for two years in connection with making patterns and cutting cards.

Q. 5. Please explain to us just what is done in preparing cards for weaving by the use of a Jacquard loom, beginning with the first step.

161 A. We can weave any kind of cloth, as well fancy as plain work.

Q. 6. To weave any particular figure, what do you first do?

A. I first draw the pattern, then cut the cards according to the pattern, then put them in the loom, and let them weave.

Q. 7. What kind of articles have you woven by the use of the Jacquard?

A. I have been weaving silk labels for merchant tailors.

Q. 8. Have you any specimens of such articles as you have woven with you?

A. I have.

Q. 9. Please produce one of these specimens, to be marked an exhibit in this case.

A. I produce one.

(It is marked "Exhibit Label.")

Q. 10. Were the letters on that exhibit formed by the use of the Jacquard?

A. They were.

Q. 11. Have you had a copy of Exhibit Johnson?

A. I have.

Q. 12. Have you woven a corset according to the description contained in Exhibit Johnson?

A. I have.

Q. 13. If you have a corset which you so made, please produce it, and have it marked as an exhibit in this case.

A. I produce one.

162 (It is marked "Exhibit Johnson Corset.")

Q. 14. By what means, in weaving a corset, is the general shape given to it, to make it fit the form of a person?

A. By hip, breast, and whalebones.

Q. 15. I meant by my question, what you use in making it, to give it the desired form; I mean, what kind of looms you have.

A. The Jacquard looms.

Q. 16. In the corset Exhibit Johnson, by what means are the bone-pockets stopped off at their upper ends?

A. They are stopped square off by the Jacquard loom.

Q. 17. I notice in Exhibit Johnson Corset the bone-pockets are stopped off at different heights; how is that done?

A. The pockets are stopped square off, according to the shape required, by the Jacquard machine.

Q. 18. Is there any difficulty in stopping the bone-pockets off at different heights, in weaving, by the Jacquard?

A. No.

Q. 19. Suppose you have been weaving corsets with the pockets stopped off by the Jacquard at certain heights and should desire to make a change by stopping them off at different heights from what you had been doing, what would you have to do to accomplish such change?

A. Change the pattern and the cards for the Jacquard.

Q. 20. By changing the pattern and the card could you stop them off at any desired height?

A. Yes; I could.

163 Q. 21. Is it, or not, just as easy to make the cards so as to stop the pockets off at different heights as to stop them off all at the same height?

A. Just as easy.

And being cross-examined by Mr. Keller, he says:

X Q. 22. Did you weave the corset Exhibit Johnson Corset in one of the looms which you found in the defendant's manufactory?

A. I did.

X Q. 23. Did that loom have one or two Jacquard machines in it?

A. Only one.

EMIL KUNZLI.

Subscribed and sworn to before me this 21st November, 1873.

JOSEPH GUTMAN, JR., *Examiner, &c.*

WILLIAM HAROLD LORD, a witness of lawful age, produced on the part of the defendants, having been by me first duly cautioned and sworn to testify the truth, the whole truth, and nothing but the truth, in the matter of controversy herein, and being examined by Mr. Gifford, counsel for defendants, he deposes and says:

Q. 1. What is your name, age, residence, and occupation?

A. My name is William Harold Lord. I am 33 years of age; reside at 517 West Twenty-fourth street, in the city of New York, and am a weaver and loom-builder.

164 Q. 2. If you are acquainted with weaving by the use of a Jacquard, please state how long you have been acquainted with such weaving, and what opportunities you have had with becoming acquainted therewith.

A. I am acquainted with such weaving. I have been acquainted with weaving by the Jacquard looms for over twenty years, and during that time I have made designs, cut cards, and mounted Jacquards, too. I

have made Jacquards and Jacquard looms, and had sole charge of Jacquard weaving-shops.

Q. 3. Do you understand how corsets are woven by the use of the Jacquard?

A. Yes, sir.

Q. 4. How are the bone-pockets in the corsets stopped off at the tops by weaving?

A. In the first place, the design is made, and whatever length you wish to stop off, you fix it in the design, and cut the card accordingly.

Q. 5. Is it as easy to cut the card to stop off at one height as it is at another height?

A. It is quite as easy to stop off at one place as it is at another.

Q. 6. Look at the paper now shown you, marked "Exhibit copy Johnson specification," and say if you have read it.

A. Yes; I have read it.

Q. 7. Does or not that exhibit tell you at what heights to stop off the bone-pockets in the corsets?

(Objected to as leading.)

165 A. I understand that it says that each pocket is finished at any required length.

Q. 8. In the manufacture of corsets what would be the required lengths?

(Objected to, as it does not appear that the witness is experienced in the manufacture of corsets.)

A. I should find out in the first place what length was required for each bone, its place and position in the corset, to make the shape of it perfect.

Q. 9. Would it be desirable to have the bones all of the same height, or of different heights, in the corset?

(Same objection as to the last preceding question.)

A. Of different heights.

Q. 10. Why of different heights?

A. Because to give the shape of the corset, it has to be cut in different heights after it is wove; of course the arm-pit is cut much lower than the breast, and you could not well put in as long a bone there as in the breast; you could not well put in bones of the same height there as in the breast.

Q. 11. If you were told to make the bone-pockets of any required length in a corset, instead of running the pockets all the way through the corset, would there be any more difficulty in making the pockets all of one length than of any other length by means of the Jacquard?

A. There would be no more difficulty; but simply in the design.

166 Q. 12. To have a corset properly constructed, is it or not desirable to have the bone-pockets of different lengths?

(Same objection as to question No. 8.)

A. It is desirable to have them of different lengths.

Q. 13. Did you see the corset Exhibit Johnson Corset made?

A. No; I did not.

Q. 14. What, if anything, did you have to do with the making of it, or the preparation for the making of it?

A. Nothing.

Q. 15. Did you ever weave corsets by the use of the Jacquard?

A. Yes, sir.

Cross-examined by Mr. Keller:

X Q. 16. Are you now, or have you ever been, in the employ of the defendants?

A. No, sir.

X Q. 17. Have you ever constructed looms for them?

A. No, sir.

X Q. 18. Where, when, and for whom, and to what extent, have you woven corsets in the Jacquard machines?

A. I wove corsets in Manchester this last year; I made a great many corsets and a great many designs for corsets for Mr. H. R. McKay.

X Q. 19. Do you mean Manchester, England?

A. Yes, sir.

WILLIAM H. LORD.

167 Subscribed and sworn to before me this 21st day of November, 1873.

JOSEPH GUTMAN, JR.,
Examiner, &c.

KATE STONE, a witness of lawful age, produced on the part of the defendants, having been by me first duly cautioned and sworn to testify the truth, the whole truth, and nothing but the truth, in the matter of controversy herein, and being examined by Mr. Gifford, counsel for defendants, deposes and says as follows:

Q. 1. What is your name, residence, and occupation?

A. My name is Kate Stone; I reside at Melrose, in the State of New York; and am now married and keeping house.

Q. 2. Have you ever worked at making corsets? If you have, where, and for whom, and when?

A. I have made corsets for Mr. Opper, of the Convex Weaving Company, in North New York; I commenced to work there in about the middle of month of July, in the year 1867.

Q. 3. What kind of work, about corsets, did you do when you first commenced to work there?

A. I was a day and a half rolling up pieces as they came from the loom, and then I went to work in the laundry.

Q. 4. How long did you continue to work in the laundry, and what kind of work did you do in the laundry?

168 A. I worked in the laundry until the company broke up. When I first went there I did everything that was done in the laundry, for I was the only girl there.

Q. 5. You may tell us, if you please, what kind of work was done in the laundry.

A. I worked at putting the work on the forms, washing, starching, and ironing; and afterwards bleaching was done there.

Q. 6. When you say that you worked at putting the work upon the forms, and that washing, ironing, starching, and bleaching was done there, do you mean that this work was done to corsets?

A. Yes, sir.

Q. 7. Where were those corsets woven?

A. At the works of the Convex Weaving Company.

Q. 8. Where were those works?

A. In North New York, in the same establishment as the laundry.

Q. Who superintended that establishment?

A. Mr. Opper.

Q. 10. Who was next in the management, under Mr. Opper?

A. Our foreman; Mr. Gregersen was foreman under Mr. Opper.

Q. 11. In what you had to do with the corsets at that place in 1867, did you have an opportunity of knowing whether there were bone-

pockets woven or formed into them, and what kind of pockets they were?

A. When I first went there the pockets were stopped by fanning, but in 1868 they were stopped by weaving.

169 Q. 12. Please explain what you mean by the pockets being stopped by fanning.

A. By the needle sewing from one side of the bone to the other.

Q. 13. When, in 1867, the pockets were stopped by fanning, were they stopped all the same height in the corset, or of different heights?

A. Different heights.

Q. 14. Were there large or small quantities of corsets made there in the year 1867 which had the bone-pockets stopped at different heights by fanning?

A. I cannot say how many, but all that were made there then were stopped by fanning; the factory had been then but recently started, and there were not very many manufactured there in that year.

Q. 15. You have mentioned that Mr. Gregersen was a foreman at that establishment; in what department of the work was he foreman, and about when, if you know, did he commence there?

A. He was foreman in the laundry; he commenced about the fall of the year 1868.

Q. 16. You have mentioned that in 1868 the pockets in the corsets at the establishment you have referred to were stopped off by weaving; at what time in the year 1868 were the pockets first stopped off by weaving, as nearly as you can remember?

A. In the beginning of the fall of that year.

Q. 17. Was it before or after Mr. Gregersen commenced as foreman in the laundry department?

A. After Mr. Gregersen commenced; after he came there.

170 Q. 18. Were the pockets which were so stopped off by weaving, stopped all of the same height in the corset, or of different heights?

A. Different heights.

Q. 19. Were the bone-pockets of the corsets made there—before Mr. Gregersen commenced—all stopped off by fanning?

A. Yes.

Q. 20. After they commenced making them with the bone-pockets stopped by weaving, as you have stated, were they all made that way, or were some made that way and some stopped by fanning after that time?

A. Some made that way and some stopped by fanning.

Q. 21. What proportion of those made in the year 1868, after they commenced stopping the pockets by weaving, were made in that way, and what proportion were stopped by fanning?

A. I cannot say exactly, but I think about half and half.

Q. 22. About what quantity of corsets were that establishment turning out in the latter part of the year 1868?

A. I can't say how many were done up-stairs, but we used to do fifty dozen per day on the forms where I worked.

Q. 23. For what purpose did you use what you call the forms?

A. For giving the corsets the right shape.

Q. 24. What was done, so far as you know, with the corsets which were finished off in the department where you worked in the year 1868?

171 A. They were sent up-stairs into the packing-room, to be packed, previous to being sent away.

Q. 25. About how many hands were engaged in that establishment upon the making of corsets in the latter part of the year 1868?

A. I cannot exactly say; I guess something over two hundred.

Q. 26. How did the heights of the bone-pockets, which you say were stopped off by weaving in that establishment in the year 1868, compare with the heights of the bone-pockets in the corset in complainant's Exhibit No. 2, which I now show you?

A. I should think something about the same.

And being cross-examined by Mr. Keller, she says as follows:

X Q. 27. When did the Convex Weaving Company break up?

A. I can't tell you what year, but it is four years ago, I know, last May.

X Q. 28. Did they continue to make corsets in that establishment with the pockets stopped off in weaving, as you have stated, up to the time the company broke up, or stopped business?

A. No, sir; they made them about three months that way.

X Q. 29. Do you know how many looms they had in that establishment during that three months, for weaving corsets, having the pockets stopped off in weaving?

A. No, sir, I do not.

172 X Q. 30. How are you able now to state that during that three months about one-half the number of corsets made had the pockets stopped off in weaving?

A. I can't say how many; I don't know about how many.

X Q. 31. Was it part of your duty there to insert the bones in these corsets?

A. When we put them on the shape, sometimes the bones turned, and we had to straighten them; it was not part of my duty to insert the bones.

X Q. 32. Were not all the corsets manufactured there that were fit for the market, put on the forms?

A. All that were put on the forms were sent up-stairs to the packing-rooms; all that were done there were put on the forms.

KATE STONE.

Subscribed and sworn to before me this 21st day of November, 1873.

JOSEPH GUTMAN, JR.,
Examiner, &c.

HANNAH MESSING, a witness of lawful age, produced on the part of the defendants, having been by me first duly cautioned and sworn to testify the truth, the whole truth, and nothing but the truth, in the matter of controversy herein, and being examined by Mr. Gifford, deposes and says as follows:

Q. 1. What is your name, age, residence, and occupation?

173 A. My name is Hannah Messing; I live at Morrisania, N. Y.; I am housekeeper; I mean I keep house.

Q. 2. Did you ever work for the Convex Weaving Company, and, if yea, where and when?

A. I did; in North New York, in 1868, commencing in July, 1868.

Q. 3. What kind of employment were you engaged in there?

A. First, I was cutting strips; then I was taken over to unpack corsets that were brought back wet; then, in arranging the sizes and packing them away.

Q. 4. Did you have an opportunity of knowing how the bone-pockets

of the corsets made there were stopped; that is, whether by weaving or fanning?

A. In both ways.

Q. 5. What proportion of the corsets which you worked at there in 1868 had the pockets stopped by weaving?

A. I can't tell; they were all mixed up.

Q. 6. Were the bone-pockets of those that were stopped by weaving, stopped all even at the top, or at different heights?

A. At different heights.

Q. 7. What, so far as you know, was done with the corsets which had the pockets stopped by weaving at different heights, after they were completed?

A. They were packed in boxes and sent to the city.

Q. 8. Was there a large or a small quantity of that kind of corsets made there?

174 A. There were not a great many made at the time that I left there; not that I know of.

Q. 9. At what time did you leave there?

A. 2d of January, 1869.

Q. 10. Did you work in the same apartment with Mrs. Stone, the witness last examined here?

A. No, sir.

Q. 11. How many persons were working in the apartment where you worked?

A. At different times more than others; there were nine steady there.

Q. 12. About how many persons worked in the apartment where Mrs. Stone worked, if you know?

A. I don't know.

Q. 13. Had you ever worked on corsets before you went to that place to work?

A. No, sir.

And being cross-examined by Mr. Keller, she says:

X Q. 14. Was it any part of your duty, when employed in the Convex Weaving Company's establishment, to insert the bones in the pockets?

A. No, sir.

MRS. HANNAH MESSING.

Subscribed and sworn to before me this 21st November, 1873.

JOSEPH GUTMAN, JR.,
Examiner, &c.

175 GUSSIE TRUKA, a witness of lawful age, produced on the part of the defendants, having been by me first duly cautioned and sworn to testify the truth, the whole truth, and nothing but the truth, in the matter of controversy herein, and being examined by Mr. Gifford, counsel for the defendants, she deposes and says:

Q. 1. What is your name, where do you reside, and what is your business?

A. My name is Gussie Truka; I reside at Melrose, N. Y.; I live with my folks.

Q. 2. Did you ever work for the Convex Weaving Company, at Melrose, N. Y.?

A. Yes, sir.

Q. 3. When did you commence to work for that company?

A. I went there the same time Mrs. Stone went there; a short time after.

Q. 4. When did you stop working for that company?

A. I was the last girl in the place. I worked there as long as they continued work.

Q. 5. What did you work at while in the employment of that company?

A. I cleaned the cloth when it came off of the looms.

Q. 6. What did that cleaning consist of?

A. I took scissors and cut the knots off.

Q. 7. At the time you so cleaned the cloth had bone-pockets been formed in it?

A. Yes, sir.

176 Q. 8. In what way or ways had the tops of the bone-pockets been stopped?

A. At different heights.

Q. 9. By weaving or sewing?

A. Some by sewing and some by weaving.

Q. 10. How many persons worked in the department where you worked—I mean about how many?

A. I could not tell exactly, but I think there was about twelve of us girls.

Q. 11. Can you say about what quantity of the corsets had the bone-pockets stopped by weaving?

A. No, sir.

And, being cross-examined by Mr. Keller, she says:

X Q. 12. Was it any part of your duty to insert the bones?

A. No, sir.

X Q. 13. When the corsets came from the loom and you had to clean them by cutting off the knots, how did you distinguish between those which had the pockets stopped off by weaving and those that were to be stopped off afterwards by sewing?

A. Because you could move the bones up and down in those that were not stopped off by weaving.

X Q. 14. Were the bones inserted in the pockets in the looms?

A. No, sir.

177 X Q. 15. You have stated that your duty was to clean the cloth by cutting off the knots when the corsets came from the loom, and that you could distinguish those that had the pockets stopped off in weaving from those that were to have them stopped off in the sewing, from the fact that you could move the bones up and down in those that were not stopped off by weaving. As the bones were not inserted in the pockets while the cloth was in the loom, how could you distinguish in the act of cleaning the cloth those that had the pockets stopped in the act of weaving from those that were to have them stopped by sewing?

A. Because I could see that there were three cords running, and they were tightened there.

X Q. 16. Look at Exhibit C, and state whether the corsets that came to your hands from the loom, that had the pockets stopped off in weaving, differed in appearance from those that had been stopped off in the sewing, by the fact that those that came from the loom with the pockets that were to be closed by sewing appeared on the outside like the one in Exhibit C, marked "X[1]," whilst those that had, as you say, the pockets stopped off in weaving had threads on the outside, as at X, Exhibit

C, which had been put in in the act of weaving, and not in sewing, as in Exhibit C.

A. I don't understand that question.

X Q. 17. Did not the corsets that came to your hands from the loom in which the pockets were to be closed by sewing appear on the outside like the part marked "X¹" in the corset Exhibit C?

A. No, sir.

X Q. 18. How, then, did they appear, if not like that?

A. I can't tell.

178 X Q. 19. How did those look when they came to you from the loom in which the pockets had been closed by weaving?

A. Just as if they had a stitch across in the pockets.

X Q. 20. In what direction did the three cords appear on the surface of those which you say had the pockets stopped by weaving?

A. Upways.

her
GUSSIE + TRUKA.
mark.

Executed and sworn to before me this 21st day of November, 1873.

JOSEPH GUTMAN, JR.,
Examiner.

JOHN GRAHAM, a witness of lawful age, produced on the part of the defendants, having been by me first duly cautioned and sworn to testify the truth, the whole truth, and nothing but the truth in the matter of controversy herein, and being examined by Mr. Gifford, deposes and says as follows:

Q. 1. What is your name, age, residence, and occupation?

A. My name is John Graham. I am fifty-one years and upwards. I reside at New York City. I am a manufacturer.

Q. 2. How long have you been a manufacturer, and of what sorts of articles?

A. Upwards of thirty years; of what we call small-wares—dif-
179 ferent kinds of fancy goods and plain goods—carpet-bindings, furniture-gimp, ribbons, tapes and webbings, corsets, coat-bindings, &c.

Q. 3. Has your business caused you to become acquainted with the machinery, especially the looms by which these articles were made?

A. Yes, sir.

Q. 4. What sort of looms did you employ in the manufacture of corsets?

A. Treadle-looms and Jacquard looms.

Q. 5. Did the corsets which you wove, some or all of them, contain pockets for whalebones?

A. Yes, sir.

Q. 6. When was it that you manufactured corsets in which there were pockets for whalebones, upon Jacquard looms?

A. I think it was in the latter part of 1867 that I commenced with Jacquard looms; I wove with treadles first.

Q. 7. Will you please state the character of those pockets in the corsets, which you so wove in the year 1867, as regards their length?

A. They were different lengths, according to the requirements of the corsets.

Q. 8. Did the pockets extend clear through the corset—how as to that?

A. Not all of them.

Q. 9. About how many different lengths did you have?

A. I think they ran from five to seven different lengths.

180 Q. 10. You say they were of different lengths, according to the requirements of the corsets; what do you mean by the requirements of the corsets?

A. Some were shorter than others; the breast was longer than the bones under the arms.

Q. 11. Did you make, upon the looms which you have described as using treadles, the same kind of corsets so far as the different lengths of pockets is concerned?

A. Yes, sir.

Q. 12. Were not those pockets stopped off in the weaving, in both the treadle-looms and the Jacquard looms?

A. They were—in both.

Q. 13. Were they stopped off at the same point, or at different points?

A. Stopped at different points according to the shape of the corsets.

Q. 14. How many of such corsets did you weave in the year 1867, approximately? and state how early in that year you commenced.

A. I think I was weaving all that year; I think I commenced in 1863; I made from five to ten dozen per day; made considerably more in the last part than in the first part.

Q. 15. Did you sell them?

A. Yes, sir.

Q. 16. How is the point at which you wish to stop a pocket regulated in a Jacquard loom?

A. There is a design, and the cards are cut from the design, and put into the loom according to the design.

181 Q. 17. Suppose you want to stop a pocket at a point different from that at which it had previously been stopped, what would you do?

A. Either alter the design or make a new one; cut your cards accordingly, and put them in the loom.

Q. 18. Have you ever seen corsets in which the pockets extended clear through, and which pockets were fanned or stopped off by sewing; if so, at what height were the pockets so stopped off in a given corset—all at the same height, or at different heights?

A. I have made corsets of that description, and they are stopped off at different heights, and fanned with silk mostly.

Q. 19. Please look at the copy, Exhibit Copy Johnson Specification, and state whether you have read it.

A. I have, sir.

Q. 20. What sort of corset, so far as the pockets were concerned, would you make, following the directions of that specification?

A. The same as I have made, with the exception of the pointed pockets; these stop off square; I stop off mine pointed; otherwise they are the same.

Q. 21. Please observe the corset, (Complainant's Exhibit, Cohn, No. 2,) which I now hand you, with particular reference to the pockets woven therein, and state whether following the directions of that specification you would make such pockets as are therein shown.

(Objected to as leading.)

A. Yes, sir.

182 Q. 22. What sort of a corset, in your opinion, would that be in which the pockets were all stopped off in the weaving at a uni-

form height, and the bones all pushed in to the same said uniform height?

A. I think it wouldn't be a corset at all, or if it would, it would be a corset without a shape.

And being cross-examined by Mr. Keller, he says:

X Q. 23. Are you practically acquainted with the art of weaving?

A. Yes, sir.

X Q. 24. Have you actually, yourself, woven corsets?

A. I have worked on the looms for days together, when we were starting them.

X Q. 25. Have you at any time made a design for a corset, and cut the cards of the Jacquard to correspond?

A. Yes, sir.

X Q. 26. Did you, during the years 1867-8 and 9, weave corsets, or cause them to be woven, in which the pockets for the bones were closed by the operation of the loom and Jacquard at different distances relatively to each other, and to the upper edge of the corset when finished?

A. I did, in 1868; I don't know as I was manufacturing in 1869.

X Q. 27. Were these corsets referred to in your last answer, woven in a power Jacquard loom?

A. No, sir.

X Q. 28. In the looms on which you wove these corsets, was the Jacquard above the loom or at the side?

183 A. It was, I think, an 800—a 600 or 800 Jacquard; above the loom.

X Q. 29. What number of needles?

A. Either 600 or 800 needles; I think it was 800 needles.

X Q. 30. Did you have more than one such loom?

A. Only one.

X Q. 31. What has become of it?

A. I took it down, when I gave up corset manufacturing, and sold the Jacquard.

X Q. 32. To whom did you sell it?

A. I don't recollect the name; it was sold for making corsets; to two partners—young men.

X Q. 33. Can you, by any examination of papers at your office, ascertain their names?

A. I think I can; I will do so, and report the names to the commissioner; I will appear and give the name.

X Q. 34. How many such corsets did you weave in that loom?

A. We did not weave a great many, as we were experimenting considerably with the loom.

X Q. 35. About how many?

A. I think we ran it for about three months; probably twenty dozen, more or less.

X Q. 36. Did you sell any of those corsets?

A. Yes, sir.

X Q. 37. Give the names of some of the persons to whom you sold such corsets.

184 A. Chapman, Lyon & Smth, of this city, I think; John C. Kelly, J. D. Whitney, J. I. & J. O. West; I mean I sold these parties corsets, and they were mixed in with the corsets that I sold, but I couldn't say who got the particular corsets produced by this loom.

X Q. 38. Was this a power-loom?

A. No, sir; it was a hand Jacquard.

X Q. 39. Did you have any other loom in which you wove corsets with the pockets stopped off by the use of the Jacquard in connection with the loom, the upper end of the pockets being stopped off in the weaving at different heights from each other, and from the upper edge of the corset when finished?

A. I had but one Jacquard loom.

X Q. 40. Will you explain how the Jacquard was operated in that loom?

A. It was operated by treadles; we worked that loom with three treadles instead of sixteen.

X Q. 41. Did you never see a corset on which the pockets were stopped off at the upper end, and all of them at an equal distance from the upper edge of the corset when completed?

A. I think you can stop a pocket anywhere you have a mind to; I think I have seen it.

X Q. 42. Have you one of the said corsets woven in that particular loom, that you could produce?

A. No, sir: I have not.

X Q. 43. Look at the corset, plaintiff's Exhibit D, and state
185 whether all the corsets that you wove were not also stopped off by sewing, like the exhibit, termed fanning in the trade.

A. No, sir.

JOHN GRAHAM.

Subscribed and sworn to before me this 21st of November, 1873.

JOSEPH GUTMAN, JR.,
Examiner, &c.

KATE BANAGAN, a witness of lawful age, having been by me first duly cautioned and sworn to testify the truth, the whole truth, and nothing but the truth, in the matter of controversy herein, and being examined by Mr. Gifford, deposes and says as follows:

Q. 1. What is your name, residence, and occupation?

A. My name is Kate Banagan; I live in Third avenue, New York City; I work at corsets.

Q. 2. Did you ever work for the Convex Weaving Company?

A. Yes, sir.

Q. 3. When did you commence, and when did you stop?

A. I think it was in 1868, either in June or July, that I commenced; I stopped a couple of weeks before they closed.

Q. 4. What was your employment there?

A. First I went to fanning, and next I went down to Mr. Gregersen's department, in the laundry.

186 Q. 5. How were the pockets of the corsets, manufactured by that company at the time, stopped off?

A. The time I went to fan they were fanned, and when I went down to Mr. Gregersen's I noticed those other ones that were not fanned.

Q. 6. In those that were not fanned, were the pockets stopped off at the same height or at different heights?

A. At different heights.

Q. 7. How long were you there, about?

A. I can't exactly tell.

Q. 8. How long had you been there when you went down to Mr. Gregersen's department?

A. I think I went there in the spring, and about the fall I went down to Mr. Gregersen's.

Q. 9. How were the pockets stopped which did not have to be fanned?
A. They had three cords running up them.
Q. 10. How was that done?
A. By weaving.
Q. 11. Do you mean three cords running from the top of the pocket to the edge of the corset?
(Objected to as leading.)
A. I mean from where the bone stopped to the edge of the corset.
Q. 12. Can you say about what quantity of these corsets had the bone-pockets stopped by the weaving?
A. Less than what the others were.
187 Q. 13. Can you say about how many a day you were accustomed to see?
A. Some days I would not see any.
Q. 14. How about other days?
A. I did not take notice until I came to Mr. Gregersen's department, then we would be looking over the fannings, and these would come across our eye, too.

And being cross-examined by Mr. Keller, she says:

X Q. 15. Was it part of your duty there to insert the bones in the pockets?
A. Yes, when I was fanning them.

K. BANAGAN.

Subscribed and sworn to before me this 21st November, 1873.
JOSEPH GUTMAN, JR.,
Examiner.

Adjourned to day to be fixed.

NEW YORK, *December* 8, 1873—11 a. m.

Present: Mr. Gifford, counsel for defendants, and Mr. Keller, counsel for complainant.

TEILE H. MULLER, a witness of lawful age, produced on the part of the defendants, having been by me first duly cautioned and sworn to testify the truth, the whole truth, and nothing but the truth, in the matter of controversy herein, and being examined by Mr. Gifford, deposes and says as follows:

188 Q. 1. What is your name, age, residence, and occupation?
A. My name is Teile H. Muller; I am thirty-two years old; I reside at Yonkers, N. Y.; I am a mechanical engineer; at present superintendent of the Eagle Pencil Company.
Q. 2. Were you ever in the employment of the Convex Weaving Company; if yea, where and when first; and where and how long did you continue in the employment of the Convex Weaving Company?
A. I was employed by the Convex Weaving Company from the fall or latter part of 1866 up to the time when the works were sold; they were sold in 1869 some time—at the end of 1869; the shop of the Convex Weaving Company was first situated in a loft on Seventh avenue, in the neighborhood of Twenty-seventh street, New York, and afterwards moved out to One hundred and forty-ninth street—to Morrisania.
Q. 3. About when did they move out to Morrisania?
A. I think it was about May, 1866.
Q. 4. Were you absent from the country in 1866 or 1867; and, if yea, when did you leave and when did you return?

A. I left for the French Exposition in February, 1867, and returned in the latter part of May, 1867.

Q. 5. What was the nature of your employment for the Convex Weaving Company?

A. I had charge of all the construction of all the new machines and buildings, and building of the looms for the company.

189 Q. 6. Did that company have looms in operation using Jacquards in weaving corsets?

A. They did.

Q. 7. Were the Jacquards used for stopping off the bone-pockets in the corsets?

(Objected to as leading. Question withdrawn.)

Q. 8. What were the Jacquards used for in weaving corsets?

A. The Jacquards determined the nature of the cloth, as well as the shape of the corset; also whether the cloth was double or single.

Q. 9. What do you mean by the nature of the cloth?

A. I mean whether it is plain, or twilled, or figured; or whether it is divided into one, two, or more thicknesses.

Q. 10. Were there bone-pockets in the corsets woven by that company?

A. The pockets for the whalebones were woven in.

Q. 11. Did the pockets extend all the way through, or were they stopped off at distances from the top of the corset; and, if yea, by what means were they stopped off?

A. Some of the pockets ran entirely through, and some were stopped off at the required length by means of the Jacquard.

Q. 12. You say in some of the corsets the pockets were stopped off at the required lengths by means of the Jacquards; what were those required lengths?

A. The length required was determined by the pattern; we always received a pattern of an imported corset, which we copied.

190 Q. 13. Explain whether or not those pockets were stopped off all of equal heights, or at different heights in the corsets?

A. They were stopped off at different heights; they were always stopped off just at those heights where the fanning was on the patterns; that is, in those corsets in which they did stop them off.

Q. 14. Is it necessary that bone-pockets in corsets, which pockets are stopped off, should be stopped off at different heights at the top?

A. I think the fanning ought to determine the place where the whalebone pockets should be stopped; I have never seen a corset where the whalebones are all of one length.

Q. 15. How many looms had that Convex Weaving Company in use for weaving corsets in which the bone-pockets were stopped off by means of the Jacquards in weaving, at different heights?

A. I could not state that correctly, for the reason that the patterns were very often changed from one loom to another, and there were always a number of patterns lying idle, but I should say there was sometimes five or six, and maybe more than that, running at a time in the last year that I was there; maybe there was sometimes none; but there was a pattern of one kind of goods that we were making, at one time, of a peculiar pattern, in which I recollect distinctly that we had them stopped; I did not pay much attention to it, as I did not regard it as a very big thing anyway.

Q. 16. How early did that company have looms in use at weaving corsets with the bone-pockets stopped off at unequal heights by means of the Jacquard?

191 A. It must have been before 1869, as in the spring of 1869 I left the company as my permanent place, and removed to the city, and only went up there once or twice a week; it may be I left there already in 1868; it was in that winter, anyway, and I know that after I came to the city I didn't pay any more attention to the details of corset manufacturing.

Q. 17. State, if you know, what was done with the corsets manufactured by that company in which the bone-pockets were stopped off at different heights at the top by means of the Jacquard in weaving.

A. They were finished and sent away with the other corsets of different kinds; we made ten or twelve kinds.

Q. 18. Where were they sent to?

A. They were sent to New York.

Q. 19. Did you afterwards see any of those corsets on sale anywhere; and, if so, where?

A. Yes; I saw them in shop-windows. I saw one, I think, in Grand street, and some in some small stores in Third avenue.

Q. 20. When was it that you so saw them in the windows?

A. About 1869.

Q. 21. What became of the property, if you know, of the Convex Weaving Company?

A. All the machinery and shafting, pulleys, and looms, movable parts, were sold to Mr. Cohn, the complainant in this suit.

Q. 22. Did that sale include any corsets, finished and unfinished, and Jacquards?

192 A. Corsets; I don't know; as regards the other thing, I took everything that I could get loose to Mr. Cohn's; it included Jacquards—all looms, Jacquards, shafting, pulleys that there was there.

Q. 23. Did it include the Jacquard patterns of the corsets that you had been weaving?

A. Yes.

Q. 24. At what time was that sale, and at what time was the property delivered to Mr. Cohn, if you know?

A. The sale was some time at the end of 1869; the exact date I don't recollect. I went up for Mr. Cohn and moved everything that belonged to him, after the sale, down to his place in the city; that was in January, 1870.

Q. 25. What, if anything, did you have to do with putting up or starting those looms after the removal to Mr. Cohn's place?

A. I had charge of putting them together again, and getting them running at Mr. Cohn's place.

Q. 26. State, if you know, what was Mr. Cohn's business before such removal.

A. As far as I know, hoop-skirts.

Q. 27. You say that the corsets manufactured by that company, having the bone-pockets stopped off by weaving at unequal heights, were sent with other corsets to New York; what were they sent to New York for?

A. I suppose to be sold, like all the rest of them; we didn't make any difference between the stopped off and not stopped off.

193 Q. 28. Did the company have a place for the sale of corsets in New York; and, if yea, was it by wholesale or retail, or both?

A. I could not state anything about the sale; I only know that I think that at the commencement Mr. Sturzburg attended to the sale of them, as H. Sturzburg was treasurer in the first year that I went there.

Q. 29. Please look at Exhibit Johnson and Exhibit Copy Johnson Specification, and state whether you have read and examined the copy of that specification.

A. I have seen a copy of this and read it.

Q. 30. When did you see a copy of that first?

A. I knew about it first in 1867 or 1868.

Q. 31. How did you then come to know about it?

A. That I could not state any more; it may be that I read it in the Astor Library, or it was brought to my notice at the works of the Convex Weaving Company.

Q. 32. With your knowledge of where bone-pockets in corsets were stopped off by what you call fanning, if the specification referred to (a copy of which is marked Exhibit Copy Johnson Specification) were put into your hands, and you were directed to make corsets according to that specification, at what places would you stop off the bone-pockets at the top—all of equal heights, or of different heights?

A. I would stop them off at that place where the fanning would have been, if it had not been stopped; in ninety-nine cases out of a hundred they would be at different heights; that would be according to the pattern of the corsets; in corsets ordinarily, they would be all of different lengths; there isn't two bones of equal length.

194 Q. 33. Please state whether or not you set up in running order for Mr. Cohn the same Jacquards for weaving corsets, which had been used by the Convex Weaving Company for stopping the bone-pockets at different heights.

A. I used the same Jacquards, but whether the same pattern went on I could not state.

And being cross-examined by Mr. Keller, he says:

X Q. 34. State as nearly as you can the whole length of time during which corsets were woven by the Convex Weaving Company with the pockets stopped by the Jacquards by weaving when it commenced and how long it continued.

A. To the best of my memory, I should say it was commenced in 1868, and continued up to the time that I left there, in the spring of 1869, somewhere.

X Q. 35. And, although you visited the establishment once or twice a week after you left Morrisania to come to the city, yet you cannot tell whether they continued or discontinued weaving corsets in that way afterwards?

A. I do not recollect it distinctly enough to state it under oath, as my visits were mainly made with reference to preparations for constructing another new set of looms; and I also built there one small sample-loom; so that very often I would not get into the weaving room at all.

X Q. 36. Who was foreman of the weaving department after you left and moved down to the city?

A. I think a man by the name of Bai.

X Q. 37. Prior to your moving down to the city were you foreman of the weaving department? And if not, state who was.

195 A. During the time that we moved up there, and I think during the greater part of 1867, we had a foreman by the name of Mangold, and after that I think Bai came in.

X Q. 38. Who cut the cards for the Jacquards, by which the corsets were woven, in which you say the whalebone-pockets were stopped by the Jacquards?

A. They were cut by the designer, but the name I could not state because they changed very often.

X Q. 39. Will you swear that there was more than one set of cards at the Convex Weaving Company's Works, for weaving corsets, in which the whalebone-pockets were stopped off while in the act of weaving, by the Jacquards?

A. To the best of my recollection there was.

X Q. 40. How many can you swear to?

A. I should there was five or six, at least, or more; they were not always confined to one pattern, as the whalebones were very often removed from one pattern and changed to another.

X Q. 41. For how many bones were such corsets designed?

A. I think they were confined to the 16 and 32 bones, as in the 100-bone corsets only a very small part of the bones could have been stopped off by the Jacquard on the top side.

X Q. 42. Describe specifically how the pockets were stopped off in such corsets; how the pockets were closed, and the appearance of the outer surface of the corset where stopped.

196 A. Some of the pockets were stopped by interlacing the upper and lower weft in two points, so as to give the appearance of two seams running down from the upper edge of the corsets to the whalebones; in others, the single part of the whalebone-pocket was woven as a twilled cloth; and there was also a pattern where the upper part was made out of small diamonds; there were a great many patterns tried, but I could not recollect them all.

X Q. 43. Did you make any of the designs for these corsets in which you say the pockets were to be stopped off by the Jacquard in weaving?

A. I may have sketched the outer appearance which was to be given to the corset on a piece of paper, but the design proper was made by the designer.

X Q. 44. What do you mean by saying, I may have sketched? I wanted your knowledge; not your maybe or your may have.

A. In describing the pattern, or the intended appearance, I mean that I may have taken a pencil to illustrate the words.

X Q. 45. Well, did you or did you not take a pencil, or did you or did you not describe the appearance?

A. I described the appearance, but whether I illustrated it with a pencil I could not state.

X Q. 46. In what words did you describe the appearance? If you described it then, describe it now.

A. I could not recollect the words that I used for such a simple thing so long ago.

X Q. 47. Is that the only answer that you can give to that question?

197 A. The order would be naturally given that the pattern was to be either diamond or cross-ribbed, or serge, or whatever name the weavers have for the different kinds of cloth.

X Q. 48. In your visits to the establishment after you moved down to the city, did you see any of the corsets which were then being woven or which had been woven after your removal to the city?

A. I have seen the corsets, but I paid no attention to them.

X Q. 49. You saw the corsets, but could not tell whether the pockets were stopped off by weaving or whether it was stopped off by hand; how then could you tell by simply seeing a corset in a shop-window how it was stopped off?

A. As I said before, after I moved down to the city and revisited the works, it was mainly for the purpose of getting up new machinery,

and so I did not pay any attention to corsets; the corset in the shop-window I recognized by its excessively poor finish, as we had a lot spoiled in the factory by blueing them with wrong colors, and after they were finished about five or six weeks they assumed every color but blue; my attention was first drawn to it by seeing it labeled "Worth Fifty Cents."

X Q. 50. Look at the corset Exhibit No. 2, and state whether any corsets that were woven at the establishment of the Convex Weaving Company had the pockets for the whalebones stopped off near the upper edge of the corsets, at different distances from the upper edge in the act of weaving by the Jacquard, as represented by that exhibit.

198 A. As I stated before, the closing of the pocket was always done at the exact position where we found the fanning in the pattern corset; some were at equal distances from the upper edge of the corsets, some were not; so that naturally the pockets would be closed at either equal distances or at unequal distances; that was done by weaving by the Jacquard.

X Q. 51. Was it in 16-bone corsets or 100-bone corsets?

A. It was in 16-bone corsets or 32-bone corsets; I don't believe that we ever made a 100-bone corset with the pockets stopped at the upper end, except the large back bones.

X Q. 52. Did you operate any of the looms after they were operated at Mr. Cohn's establishment?

T. H. MULLER.

Subscribed and sworn to before me this 8th day of December, 1873.

JOSEPH GUTMAN, JR.,
Examiner, &c.

Examination adjourned to December 9, 1873, at 11 a. m.

JOSEPH GUTMAN, JR.,
Examiner, &c.

NEW YORK, *December 9th*, 1873—11 a. m.

Present: Mr. Gifford, counsel for defendants, and Mr. Keller, counsel for complainant.

JAMES G. FITZPATRICK, a witness of lawful age, produced on
199 the part of the defendants, having been by me first duly cautioned and sworn to testify the truth, the whole truth, and nothing but the truth, in the matter of controversy herein, and being examined by Mr. Gifford, counsel for defendants, deposes and says as follows:

Q. 1. What is your name, age, residence, and occupation?

A. My name is James G. Fitzpatrick; I am thirty-nine years old; I reside in Passaic, N. J.; I am a merchant.

Q. 2. Do you know the parties to this suit?

A. Yes, sir.

Q. 3. Have you ever been interested in business with the complainant?

A. I have.

Q. 4. From what time to what time, and in what kind of business?

A. For seven years, up to the first of January last, in skirts and corsets.

Q. 5. What part of the business did you attend to in the year 1870?

A. Sales.

Q. 6. Did you have a store in New York for the sale of goods?

A. Yes, sir.

Q. 7. At what place, and for the sale of what kind of goods?
A. At 87 Worth street, and for the sale chiefly of skirts and corsets.
Q. 8. Were you interested in the manufacture of the corsets, as well as in the sale of them?
200 A. I took no part in the manufacture of the corsets; my attention was devoted almost wholly to the sales.
Q. 9. In whose name or names was the business done, both of the manufacture and of the sales of corsets; I mean in 1870?
A. In the name of M. Cohn & Company.
Q. 10. Where was their manufactory for the corsets; I mean in 1870
A. On West Twenty-sixth street.
Q. 11. Where were the corsets sent that were manufactured in that factory?
A. They were usually sent to the store, for sale and shipment, &c.
Q. 12. Were there any sent to that store, so far as you know, which were not sent there for sale or shipment?
A. No, sir.
Q. 13. Where were the corsets placed in that store which were sent there?
A. They were usually placed in the basement.
Q. 14. How many floors or apartments did you have in that store?
A. There were three floors; the basement, and sub-cellar.
Q. 15. How was the first floor occupied; that is, for what?
A. For offices and samples of stock, chiefly.
Q. 16. In what condition were the corsets, during that year, when they came to the store from the factory; that is, in what were they put up or packed?
201 A. Each corset was wrapped in a paper wrapper, and were usually put up in dozen boxes; some, I believe, were put up in dozens without boxes.
Q. 17. Did you sell them by retail or wholesale, or both?
A. By wholesale only.
Q. 18. In what quantities, during that year; that is, 1870?
A. The particular quantities I can't state; they were sold in lots of various sizes.
Q. 19. State whether or not you carried on the same general business during the year 1869, including corsets.
A. We carried on the same business, so far as skirts are concerned, but not as to corsets.
Q. 20. Did you sell corsets during any part of the year 1869?
A. No; I think not.
Q. 21. Did you sell them during all of the year 1870?
A. No; I believe not.
Q. 22. What part of the year did you sell them during the year 1870?
A. I can't state when I commenced to sell them in the year 1870; but the chief sales for that year were made in the latter half of it.
Q. 23. Was there any discrimination in the different kind of corsets that were sent to the store for sale, as to some being for sale and others not?
A. All that were sent to the store were intended for sale.
202 Q. 24. From where, chiefly, were your customers that bought the corsets; that is, from what part or parts of the country?
A. Not from any particular part; from various parts.
And being cross-examined by Mr. Keller, he says:
X Q. 25. Do you remember a sale of corsets which you made to Claflin & Co.?

A. I do.

X Q. 26. When was that sale made?

A. I believe in February, 1871.

X Q. 27. And the delivery in March, was it not?

A. I think the delivery was in February.

X Q. 28. Was not that the first sale that was made of corsets manufactured by Cohn & Company?

A. No, sir.

X Q. 29. Do you feel sure of that?

A. Yes, sir.

X Q. 30. To whom did you ever sell any corsets made by Cohn & Company prior to that?

A. Names in general I don't remember; but there is one sale that I have had my memory refreshed upon; that was to a party in Baltimore —Passano & Sons.

X Q. 31. By whom has your memory been refreshed on that subject?

A. By a conversation with the Passanos.

X Q. 32. When?

203 A. Since the matter came up; since the commencement of this suit.

X Q. 33. That lot; do you remember whether the pockets at the upper end for the whalebones were stopped by sewing, or in the act of weaving?

A. I do not, sir.

J. G. FITZPATRICK.

Subscribed and sworn to before me this 9th December, 1873.

JOSEPH GUTMAN, JR.,
Examiner, &c.

WILLIAM RAULSTON, a witness of lawful age, produced on the part of the defendants, having been by me first duly cautioned and sworn to testify the truth, the whole truth, and nothing but the truth, in the matter of controversy herein, and being examined by Mr. Gifford, counsel for defendants, deposes and says as follows:

Q. 1. What is your name, age, residence, and occupation?

A. My name is William Raulston; I am twenty-seven years old; I reside at New York City; I am a salesman.

Q. 2. Do you know John Graham?

A. I do, sir.

Q. 3. Are you in his employment; and, if yea, how long have you been so?

A. I am, sir; I have been there for eight years next spring.

204 Q. 4. Has said Graham manufactured corsets; and, if yea, when did he commence such manufacture?

A. I think it was in 1867 that he commenced.

Q. 5. How long did he continue to manufacture corsets?

A. Some eighteen months or two years.

Q. 6. What part of the business did you attend to for Mr. Graham?

A. Principally selling of the stock.

Q. 7. Did he weave corsets by hand-looms, or by power-looms, which?

A. By hand looms.

Q. 8. Were there pockets woven in the corsets, for bones?

A. There were.

Q. 9. How were these pockets stopped off at the tops, by weaving or sewing?

A. I think they were stopped off by weaving.

Q. 10. Were they stopped off at different heights at the top, or all at the same height?

A. They were different lengths.

Q. 11. What do you mean; do you mean that they were at different heights at the top, or all of the same height at the top? Please explain.

A. I mean that the pockets were woven of different lengths.

Q. 12. Did you sell the corsets?

A. I did, sir.

205 And being cross-examined by Mr. Keller he says:

X Q. 13. About what number of bones to each corset that was woven at Mr. Graham's?

A. Principally, forty bones.

X Q. 14. Look at the corset marked "No. 153, Viola," and at the part marked across with ink, and State whether the pockets which you say on your examination-in-chief were woven of different lengths were like those so marked.

A. I think they were woven similar to that; that is, the better corsets.

X Q. 15. In those corsets on those parts the bones were inserted in the pockets at their upper ends, were they not?

A. I believe they were, sir.

And being further examined by Mr. Gifford, he says:

R. D. 16. In the corsets manufactured by Mr. Graham, were there not bones in them which were inserted into the pockets from the lower ends of the pockets?

A. I think they were inserted from both ends.

R. D. 17. How were the upper ends of the bone-pockets into which the bones were inserted from the lower ends of the pockets stopped off, by weaving or by sewing, in the corsets made by Mr. Graham?

A. I could not say.

W. RAULSTON.

Subscribed and sworn to before me this 9th day of December, 1873.

JOSEPH GUTMAN, JR.,
Examiner, &c.

206 KATIE RYAN, a witness of lawful age, produced on the part of the defendants, having been by me first duly cautioned and sworn to testify the truth, the whole truth, and nothing but the truth, in the matter of controversy herein, and being examined by Mr. Gifford, deposes and says as follows:

Q. 1. What is your name, age, residence, and occupation?

A. My name is Katie Ryan. I am twenty-two years old. I reside in North New York. I am working for Mr. Wuenock, paper-box maker.

Q. 2. Did you ever work for the Convex Weaving Company; if yea, when?

A. Yes, sir; I went to work in the year 1867; I worked there nearly two years.

Q. 3. What kind of work did you have to do there for that company?

A. I worked at boning; inserting the bones in the pockets of the corsets.

Q. 4. How many persons were at work in the apartment where you worked, and was any kind of work done in that department except inserting the bones in the corsets?

A. As far as I can recollect, there was 50, 60, or 70; there was fanning,

fastening the bones in the corsets, stitching, hemming and cording, and basting done there.

Q. 5. How were the pockets stopped off at their upper ends in the corsets into which you inserted the bones? Mention the different kinds, if there were different kinds.

A. They were stopped off by three cords running up to the top; stopped off square.

207 Q. 6. Were they stopped off by weaving or sewing; which?

A. Stopped off by weaving.

Q. 7. Were the bone-pockets all even at the top, or of different heights?

A. They were of different heights to suit the different sizes of the corsets.

Q. 8. I mean were the pockets in the same corsets stopped off all of the same height, or of different heights?

A. Different heights.

Q. 9. You have mentioned that fanning was done also in that apartment where you worked. What did that fanning consist of?

A. Fastening the bones in the pockets of the corsets.

Q. 10. How was it with pockets in the corsets on which the fanning was done; did the pockets extend all the way through the corsets, or only a part of the way?

A. We had a great many woven there that had the pookets open all the way through.

Q. 11. In those that had the pockets woven open all the way through, how were those pockets stopped off before the corsets went to the laundry?

A. They were stopped off by stitching them at the top and bottom.

Q. 12. What quantities of corsets which had the bone-pockets stopped off by weaving were being made at that place when you worked there, so far as you know?

A. Some days, twenty dozen; some days not so many; some days none at all.

208 Q. 13. What was done with those corsets, so far as you know?

A. They were taken down-stairs to the laundry and finished and sent away.

And being cross-examined by Mr. Keller, she deposes and say:

X Q. 14. Who was the forewoman; what was the name of the forewoman or the foreman who had charge of that branch of the business during the time that you worked there?

A. We had Mr. Meeter—Mr. Lawrence Meeter, I believe—and we had a Mrs. Howard and a Miss Holliday.

X Q. 15. In the corsets in which you inserted the bones, were they cut at the upper edge before you inserted the bones?

A. That was according to the width of the pocket; if they were wide enough to insert them without cutting them, we would do so; if not, we would cut the stitches.

X Q. 16. In that condition of things you could insert the bones from either end, could you not?

A. Not in the corsets that were stopped off by weaving.

X Q. 17. In those in which you say the pockets were stopped by weaving were they cut at the upper edge before inserting the whalebones?

A. No, sir; not unless the pockets were so narrow that we could not get the bones in without cutting them.

X Q. 18. What I want to know is, whether the corsets were cut into shape before they came to you to be boned?

A. Yes, sir; they were.

209 X Q. 19. By whom were they cut in shape?

A. I really could not tell who cut them, we had so many different cutters.

And being further examined by Mr. Gifford, she says:

R. D. 20. Into which end of the corsets did you insert the bones into the pockets; from the lower edge, or from the upper edge, in those which had the pockets stopped off by weaving?

A. From the lower edge.

KATIE RYAN.

Subscribed and sworn to before me this 9th December, 1873.

JOSEPH GUTMAN, JR.,
Examiner, &c.

MARY REHM, a witness of lawful age, produced on the part of the defendants, having been by me first duly cautioned and sworn to testify the truth, the whole truth, and nothing but the truth, in the matter of controversy herein, and being examined by Mr. Gifford, counsel for the defendants, deposes and says as follows:

Q. 1. What is your name, age, residence, and occupation?

A. My name is Mary Rehm. I am twenty-two years old. I reside at Melrose, N. Y. I am not engaged in any business; I am housekeeping.

210 Q. 2. Did you ever work for the Convex Weaving Company; and, if you did, when, where, and at what kind of work?

A. I did; I went to work there in 1867, and continued until they closed up; at North New York; I was engaged at boning corsets.

Q. 3. What kind of corsets did you insert bones in, for that company; I mean what kind of bone-pockets they had?

A. Common corsets; some were stopped off at the top, and some with bone all through.

Q. 4. Did you hear the testimony of the last witness, Katie Ryan, and were you working in the same apartment, and at the same kind of business?

A. Yes, sir.

Q. 5. Was her statement correct, in reference the bone-pockets being stopped off?

A. Yes, sir.

Q. 6. Do you know what was done with the corsets after they were boned in the apartment where you worked?

A. They were sent down to the laundry to be washed and pressed.

MARY REHM.

Subscribed and sworn to before me this 9th December, 1873.

JOSEPH GUTMAN, JR.,
Examiner, &c.

Cross-examination waived by Mr. Keller.

211 JAMES LYALL, a witness of lawful age, produced on the part of the defendants, having been by me first duly cautioned and sworn to testify the truth, the whole truth, and nothing but the truth,

in the matter of controversy herein, and being examined by Mr. Gifford, counsel for defendants, deposes and says as follows:

Q. 1. What is your name, age, residence, and occupation?

A. My name is James Lyall. I am thirty-seven years old. I reside at 324 West Twenty-eighth street, New York City. I am a manufacturer of looms and machines.

Q. 2. What was the first you had to do with looms for weaving corsets?

A. It was to put in a positive-motion shuttle of mine.

Q. 3. Tell when, where, and for whom?

A. In the year 1870, for Mr. Cohn, in West Twenty-sixth street.

Q. 4. Have you a patent for what you call your positive-motion shuttle, and is that invention applicable to different kinds of looms?

A. I have a patent for the positive-motion shuttle, and I am adapting it to weave all kinds of fabrics.

Q. 5. Did you apply it to Mr. Cohn's corset-looms in 1870?

A. I adapted it to Mr. Cohn's loom at the end of October or first of November, 1870.

Q. 6. What do you mean by adapting it?

A. I mean to alter portions of his present loom to receive the positive-motion shuttle, and to make it work.

212 Q. 7. Was it applied to his corset-looms and used on them?

A. Yes, sir.

Q. 8. On all of the corset-looms he had at that time, do you mean?

A. No, sir; he had some twenty-six looms, of which I afterwards altered the whole of them.

Q. 9. At what time did you alter the whole of them?

A. During the year 1871, I think. I began in the year 1870 and finished them in 1871.

Q. 10. Were there twenty-six looms in operation in the year 1870?

A. The most of them; about sixteen, I think, were running in 1870.

Q. 11. Weaving what?

A. Corsets.

Q. 12. What kind of corsets—as to whether or not the bone-pockets were woven to extend all the way through the corsets, or otherwise?

A. The corsets that he was weaving were sixteen-bone and twenty-four-bone corsets, with all the pockets stopped off in the weaving.

Q. 13. Where were they stopped off; that is, at what part or parts of the pockets, and by what means?

A. At the upper end of the pocket, by means of the Jacquard machine in the loom.

Q. 14. Were the pockets stopped off at equal heights or unequal heights?

A. Unequal heights.

213 Q. 15. Look at Exhibit 1, being the patent on which this suit is brought, and say whether or not the bone-pockets in the corsets, which you say were being woven on the looms of Mr. Cohn in 1870, corresponded as to the relative heights with figure three of the drawings of that patent?

A. They did correspond with figure three.

Q. 16. Was the manufacturing carried on in the individual name of Mr. Cohn, or in a firm-name, or don't you know?

A. In a firm-name; M. Cohn & Co.

Q. 17. Were any corsets being woven there in the year 1870, other

than those which had the pockets stopped off by weaving, as you stated?

A. I never saw any others; all the looms that were running when I went there were all weaving corsets, with the pockets stopped off by weaving.

Q. 18. Was there anything connected with the introduction of your positive shuttle-motion into those looms which rendered it important or for your interest to know what would be the success or probable production of, and demand for the production of, those looms? If there was, please explain what it was.

A. Yes, sir; it cost considerable money to make the alteration of the looms, and before taking in hand to alter the looms and make new ones, I required of Mr. Cohn to show to me the amount of goods that they were using, and the amount that was selling, and how big a demand there was for those goods, as it would involve considerable expense to me in case there was not a large quantity of those goods sold, and a ready sale for them.

214 Q. 19. Was not Mr. Cohn to pay you the cost of the alterations, and if he were, what odds did it make to you whether it was successful or not?

A. Yes; he was to pay me the cost of the alteration, but that I was adapting the looms for other fabrics that would pay much better, a much larger profit to me; if he couldn't show to me that there was a large demand for these goods, I would not have taken it in hand at that time.

Q. 20. Did you feel interested in having your patented invention work successfully, and be profitable in such looms as those of Mr. Cohn's? If you did, why did you so feel?

(Objected to as immaterial to the issue.)

A. I did; because it was a new fabric, and looked as if there would be large gains made by adapting it.

Q. 21. Did you in 1870 have a conversation with Mr. Cohn as to what was being done with the corsets then being woven at that factory by his firm? If you did, what did he say on that subject?

A. I had several conversations with him. He declared to me two or three times that he was selling all his corsets that he was making, and could sell ten times as many if he could get them out, and urged me to hurry up the looms.

Q. 22. Were you at any time at his store in New York, or the store of his company?

A. Once, I believe.

Q. 23. State, if you know, about what quantity of those corsets were being woven in 1870, on those looms, or on each loom that was in operation.

215 A. Each loom was weaving about two dozen a day; I have figured up about how many were made on the looms in the fall of 1870; it would make about 3,000 dozen.

Q. 24. In what manner were these corsets put up, after completed in the factory to be sent away?

A. They were put up in tissue-paper wrappers, and put into boxes, a dozen in a box.

Q. 25. Were they, or not, put up in a way suitable for sale?

A. Yes, sir; they were all ready for market, as corsets are done up in other factories to be sold.

Q. 26. Did you see any of them on sale when you went to the store?

A. Yes, sir.

Q. 27. Are you acquainted practically with the use of a Jacquard in a loom?

A. Yes, sir; I have manufactured them, and used them, and mounted them on looms.

Q. 28. In the use of a Jacquard to stop off bone-pockets, is there not any more difficulty in stopping them off at different heights in the corset than there would be to stop them off all at the same height in a corset?

A. No more difficulty; you make the design, cut the cards, and weave the corsets wherever you determine to locate the stops; it is merely to make the design, and cut the cards accordingly, so that one is as easy as the other.

Q. 29. If one were to tell you to arrange the Jacquard so as to stop all the pockets of the corsets by weaving, at what heights of the pockets would you arrange the Jacquards to stop off the pockets?

216 A. I would make the design and arrange the Jacquards to stop the pockets off in the breast, the tops forming an arc; the pockets in the middle of the corset, under the arm, would fall lower, and the pockets at the back part of the corset would be brought up higher than those under the arm; that is the required shape for a corset.

Q. 30. Why would you arrange the Jacquards to stop off the pockets by weaving as you have mentioned in your last answer?

A. Because that has always been the shape and contour of a corset, and because the body is of that nature that it requires a corset to be made in that shape, and the bones are put in to support that shape.

Q. 31. With the knowledge of corsets as they were constructed in 1854, if one were to tell you to arrange the Jacquard so as to stop off the pockets by weaving at suitable and proper heights of the pockets for the construction of a marketable corset, how would you have arranged them for stopping off the pockets?

(Objected to, as the question assumes what has not yet appeared, of the making of corsets in 1854, or of how they were made.)

A. I don't understand the question.

Q. 32. Do you know how corsets were constructed in the year 1854, as to the height of the bone-pockets in the corsets?

A. Yes, sir.

Q. 33. How were they constructed in that respect?

A. The same as they are at the present day; the bones are of
217 different distances of height from one another; the centre bone of the breast being the highest, and graduated from each side down.

Q. 34. With the knowledge of that being a proper way to construct the heights of the pockets for the bones in the corsets, how would you arrange the Jacquards to stop off the pockets by weaving at proper heights; that is, at what places would you arrange the Jacquards to stop off the pockets at their upper ends?

A. I would arrange the Jacquard to stop off the pocket about an inch from the top side of the corset, after it was cut out in shape; they are at different heights; the shape of the corset will not allow them to be even.

Q. 35. What do you mean by saying that you would arrange the Jacquard to stop off the pocket at about an inch from the top side of the corset? Please explain.

A. The corset has an uneven top—an uneven upper edge—the breast being higher than the arm-pit; I would begin with the first bone of the corset and bring that up to a height to support it, and so with all the

pockets to hold the bones, stopping them off at a proper height to support the cloth up to within an inch of this crooked edge on the top; that is what I mean by stopping the pockets within an inch of the upper edge of the corset.

Q. 36. Have you examined the specification marked "Exhibit Johnson?"

A. I have.

Q. 37. State whether or not that specification contains a description sufficient to enable one acquainted with corset manufacture to
218 construct such a corset as is represented at figure three of the drawings of the patent Exhibit No. 1, on which this suit is brought.

A. Yes, sir; it is very plain and clear.

And, being cross-examined by Mr. Keller, he deposes and says as follows:

X Q. 38. What time in 1870 did you first visit the plaintiff's establishment?

A. The last week in October.

X Q. 39. How often between that time and the first of January, 1871, did you visit that establishment?

A. As many as twelve times.

X Q. 40. Was not Mr. Cohn with you every time you visited that establishment, or went into the weaving department of that establishment?

A. Not every time; no, sir.

X Q. 41. How many times without his being with you, will you swear to?

A. As many as three or four.

X Q. 42. When you were there without him, how long did you remain each time?

A. Sometimes an hour, and sometimes more; I was busy in making alterations on the looms; sometimes it took me longer, and sometimes shorter.

X Q. 43. During those visits, up to the first of January, 1871, did you have anything to do with more than one loom?

A. Yes, sir.

219 X Q. 44. How many other looms did you have to do with?

A. Several.

X Q. 45. State how many, up to the first of January, 1871.

A. I suppose as many as three or four.

X Q. 46. Did the business which you had to do upon those looms require you to ascertain how the pockets were stopped off in the corsets woven on the other looms in the establishment?

A. Yes, sir.

X Q. 47. State how.

A. Mr. Cohn wished me to alter and construct these looms to the best advantage for to weave corsets, and in that way I had to understand the nature of the whole of the looms; one of the looms that he had before was constructed in one way and a number of others in another way, and I had to examine his looms to get at the best way to alter each of these looms to put the positive-motion shuttle into them.

X Q. 48. What did the positive-motion shuttle have to do with determining where the pockets should be stopped off?

A. It had nothing to do with determining where the pockets should be stopped off, but it laid in the weft-thread that makes the pocket.

X Q. 49. Wouldn't it work equally well with pockets extending the whole width, as well as stopping off short of the whole width?

220 A. Yes, sir; but there is a further point in the shuttle; in weaving corsets there is a portion of the weft to be taken back, which has always heretofore given great trouble, which I had to construct a mechanism in the shuttle to take back that portion of weft without making holes in the corsets, or leaving loops; in that way I had to watch every thread that went into the corset, the weft thread.

X Q. 50. Now, sir, in weaving those parts of the corset constituting the pockets, whether the pockets extended the whole width of the cloth, or were stopped off in the act of weaving, was not the weft thread interwoven the whole width of the cloth?

A. Yes.

X Q. 51. Then, pray, state why your positive-motion shuttle required you to inquire whether the Jacquards were mounted to stop off the pockets in the act of weaving, or leave them open all the way through.

A. To construct that fine movement in the shuttle to take back that weft, kindly required me to understand how the whole corset was made.

X Q. 52. Don't you know that in the weaving of the pockets for the whalebones, the weft thread is woven in the whole width of the cloth, and in that part there is more slack thread to be taken up than in weaving ordinary cloth, and that the whole difficulty in taking up the slack thread is in weaving the convex portions of the cloth, for the breasts and the hips?

A. In weaving the pocket there is nothing to be taken back into the shuttle, but the very next thread to the pocket that is woven in, we have to take back some ten to fifteen inches of the weft thread.

221 X Q. 53. Will not that be the case whether the pockets are woven open all the way through, from selvedge to selvedge, or whether they are stopped off in weaving?

A. Yes, sir.

X Q. 54. Was not your first contract with Mr. Cohn for one loom, and when was that finished?

A. Yes, sir; it was finished in the latter part of November, or the first of December.

X Q. 55. When was the order given for altering other of the looms?

A. I can't recollect at present, but we talked of altering all the looms during November and December.

X Q. 56. What office do you hold in the United States Corset Company, defendants in this suit?

A. I am a director.

X Q. 57. No other office than that?

A. No other appointed office; no, sir.

X Q. 58. What duties do you there perform?

A. Erect and build the machinery, and set *in* running.

X Q. 59. When was that company incorporated?

A. I can't recollect the exact date; I think about two years ago.

X Q. 60. When did you become a director in that company?

A. I don't know exactly—when they elected their other directors—I think it was in the year 1872.

X Q. 61. What, if anything, did you have to do towards getting up this company?

A. Nothing.

222 X Q. 62. Didn't you suggest the getting up of such company after you had applied your shuttle-motion to some of Mr. Cohn's looms?

A. No, sir; Mr. Cohn suggested getting up a company to me.

X Q. 63. Do you know who did get up the defendants' company?

A. Yes, sir; my brother.

X Q. 64. When Mr. Cohn suggested to you, as you state, the getting up a company, was the company to be independent of him or of his establishment?

A. Both to be independent of him, and he suggested to make his concern into a company.

X Q. 65. You have stated that you saw some of these corsets manufactured at the establishment of Cohn & Co., with the pockets stopped off at various heights, on sale at the store of Cohn & Co.; state how you know they were on sale, and specifically when they were so on sale.

A. If my memory serves me right I have not stated any such thing; I stated that I visited Mr. Cohn's store and saw corsets on sale.

X Q. 66. Were you in England in 1854, or before that time?

A. No; I was in Scotland.

X Q. 67. When in Scotland, at that time, did you examine how the corsets were then made in that country?

A. I was in the States in 1854; in Scotland prior to 1854; I did not examine the corsets when I was there. It was some time prior to 1854.

JAMES LYALL.

223 Subscribed and sworn to before me this 9th December, 1873.

JOSEPH GUTMAN, JR.,
Examiner, &c.

NEW YORK, *December* 23, 1873—10 a. m.

Present: Counsel for the respective parties as before.

LEMUEL W. SERRELL, a witness of lawful age, produced on the part of the defendants, having been by me first duly cautioned and sworn to testify the truth, the whole truth, and nothing but the truth, in the matter of controversy herein, and being examined by Mr. Witter, counsel for defendants, deposes and says as follows:

Q. 1. What is your name, age, residence, and occupation?

A. My name is Lemuel W. Serrell; I am forty-four years old; I reside at Plainfield, N. J., and do business at 119 & 121 Nassau street, New York City; I am a solicitor of patents.

Q. 2. Please look at the certified copy of document marked "Exhibit Johnson, J. G., jr., Ex.," and the copy marked "Exhibit Copy Johnson Specification, J. G., jr., Ex.," and state whether you have read those exhibits, and whether you understand their contents.

A. I have, and do.

Q. 3. Have you read, and do you understand, the letters-patent upon which this suit is brought?

A. I have carefully read and examined the letters-patent of complainant.

224 Q. 4. Will you please state briefly what has been your experience regarding the soliciting of patents, and testifying as expert before the United States courts in cases in which patents were the subject-matter of the controversy, and particularly what opportunities you have had for becoming acquainted with the state of the art of manufacturing woven corsets?

A. My business as solicitor of patents has been very extensive, and I have always been in that business, now over twenty-five years. I have on several occasions been called to give evidence as an expert in patent cases; my opportunities for obtaining knowledge of the state of the art

in connection with the manufacture of woven corsets dates back as far as 1862, since which time I have had occasion to act as solicitor in connection with several patents on appliances used for weaving corsets; in the proceedings which were connected with the procuring of those patents I have referred to I obtained a general knowledge of the mode of weaving pursued by clients, as well as from publications that I have had occasion to examine from time to time.

Q. 5. Assuming that the bone-pockets of corsets, in their usual mode of manufacture, were stopped off at the tops at different heights in the same corset, by sewing or fanning, prior to the introduction of the specification marked "Exhibit Johnson, J. G., jr.," then did, or not, the said specification being added to that previously used mode of manufacture of corsets describe such a corset as is described in the patent sued on, and represented in figure three thereof, so far as respects the heights at which the bone-pockets were stopped off? If yea, please describe how it appears.

225 A. According to my knowledge of the state of the art prior, certainly, to 1864, I understand that it was common to weave corsets in the Jacquard loom, and in the act of weaving, to weave pockets for the reception of the bones. The capacity of the Jacquard loom is such that these pockets can be stopped off at any desired place. In other words, that the fabric, woven where the pockets are formed, will be double to the end of the pocket, and single from the end of the pocket to the selvedge. In corsets manufactured previous to 1854, I understand that it was usual to weave the pocket open from selvedge to selvedge of the cloth, and these pockets were subsequently stopped off at the points required by sewing or fanning, the object being to leave a portion of the fabric of the corset between the upper ends of the bones and the edge of the completed corset. The points at which this stopping off or fanning was applied, depended upon the shape of the corset, the fashion, or the preferences of purchasers, which had to be accommodated by the manufacturer. According to the statement made in the publication, (Exhibit Copy Johnson Specification, J. G., jr.,) I understand the statement to be made, first, that each pocket is to be woven with a square-ended stop-off instead of being tapered; and second, that in place of the bone-pockets being woven from selvedge to selvedge of the corset-blank, these pockets are to be stopped off at "any required length in the corset." Taking it, therefore, for granted, as the question assumes, that the requirements of the trade had been such previous to 1854, that the bone-pockets were stopped off by fanning at different lengths, or, as might otherwise be expressed, at different distances from the edge of the completed corset, then the corset manufacturer,

226 in arranging his Jacquard, would stop off the pockets in the same positions relatively to each other as they had before been stopped off by fanning. By adding the information given in the said Exhibit Johnson to the pre-existing state of the art, as I understand it, any corset manufacturer would make a corset exactly like that represented in figure three of the drawing of complainant's patent, if the fashion or requirements of the trade called for a corset of that shape; and under any circumstances it would be substantially the same as the corset described and represented in the specification and drawing of complainant's patent.

(Counsel for defendants puts in evidence a certified copy from the Patent-Office of the United States of an official publication from the great seal patent-office of Great Britain, which is marked "Defendants' Exhibit, official publication, J. G., jr., ex.")

Q. 6. Please look at the exhibit just introduced in evidence, and state for how long you have been acquainted with said printed publication.

A. I have had occasion frequently to examine the printed copies of English specifications, both at the Astor Library and in the library of the Patent-Office, and I am aware that the complete volumes containing said patents as granted have been received at the said libraries within, certainly, three years of the date of the English patent or provisional specification, and I am aware that certainly as early as 1858, the volume containing the publication of which the said exhibit is a copy was in the Astor Library.

(Defendants' counsel puts in evidence an article which is marked "Defendants' Exhibit Illustration, J. G., jr., exr.")

227 Q. 7. Please look at the article marked "Exhibit Illustration," and state what it represents or illustrates.

A. It illustrates what may properly be called a corset-blank, being the two halves of one corset, intended to be separated near where the word "top" is marked on it. It also illustrates two different ways in which the surplus cloth at the top and bottom edges of the fabric may be cut off in trimming the blank to the proper shape for a corset. As I understand the manufacture of corsets, the selvedges which come at the top and bottom of the corset are always wholly or partially trimmed off. The portions on this blank which upon one-half of the corset are bleached, and on the other half of the corset are colored red, are to be cut off and thrown away as waste material, and the top and bottom edges of the corset are to be bound, in finishing the said corset.

And being cross-examined by Mr. Keller, he says:

X Q. 8. Do you know, of your own knowledge, in what manner the pockets of the whalebones in corsets were stopped off in England at or before the date of Exhibit Johnson, independently of what you have read in that exhibit?

A. I never saw a corset woven in England. I have been familiar with corsets from an earlier date than 1854, but cannot now say whether earlier than that date I had or had not seen an imported corset such as that inquired about.

X Q. 9. Have you ever mounted a Jacquard loom and designed the punching of the cards to weave a corset or any fabric in a Jacquard loom?

A. I never have.

LEMUEL W. SERRELL.

228 Subscribed and sworn to before me this 23d day of December, 1873.

JOSEPH GUTMAN, JR.,
Examiner, &c.

(Defendants' counsel puts in evidence a certified copy from the Patent-Office of the United States of the file-wrapper and contents of the letters-patent granted Moritz Cohn, dated April 15, 1873, No. 137893, for improvement in corsets. It is marked "Defendants' Exhibit File Wrapper, J. G., jr., exr.")

GEORGE H. BARNES, a witness of lawful age produced on the part of the defendants, having been by me first duly cautioned and sworn to testify the truth, the whole truth, and nothing but the truth, in the matter of controversy herein, and being examined by Mr. Witter, counsel for defendants, deposes and says as follows:

Q. 1. What is your name, age, residence, and occupation?

A. My name is George H. Barnes. I am forty-three years old. I reside at 439 Grand street, New York City. I am a corset-maker.

Q. 2. State where and when you first commenced the business of corset-making, and where and for how long you have continued therein, including your occupation both for your own account and for that of others.

A. I commenced in Bristol, England, in 1843. I have continued in that business upwards of thirty years.

229 Q. 3. Where else besides Bristol, England, have you carried on that business, either for yourself or others?

A. At Bath, England, and at New York City, United States.

Q. 4. Have you had opportunities of becoming acquainted with many of the different kinds of corsets made both abroad and in this country?

A. My long experience in the corset business has enabled me to examine almost every kind of corset made by hand or loom.

Q. 5. Can you tell, by examining a corset, whether it is made by hand or loom; that is, whether the corsets are hand-made corsets or woven corsets?

A. I can.

Q. 6. Have you made what are called hand-made corsets, yourself?

A. I have.

Q. 7. Please start with the very first step in that operation, and narrate at length each particular step which you take until the corset is complete.

(Objected to as immaterial to the issue, which relates entirely to woven corsets, and not to hand-made corsets.)

A. I first buy the material; next, cut from the pattern. I then give them to the stitcher. After that I trim them, top and bottom, to the proper shape. The bone spaces are stopped at the different lengths, suitable to the wearer; then they are boned and pressed, and are ready for sale. I should have said I eyeleted them.

230 Q. 8. Have you ever been engaged in boning woven corsets? If yea, when and where—that is, putting the bones into woven corsets?

A. I have; in 1852, in Bath, England.

Q. 9. You say, in your answer to question 7, the bone-spaces are stopped off at the different lengths, suitable to the wearer. Please explain a little more fully what you mean by that.

A. That the back and front of the corset requires them higher, or nearer the top of the corset, than the sides or under the arms thereof.

Q. 10. Look at the corset marked "Defendants' Exhibit Barnes, J. G., jr., examiner," and which is here put in evidence, and state how long you have been familiar with corsets like it.

A. Twenty-one years.

Q. 11. By what means are the lower short bone-pockets stopped off at their tops in that corset?

A. By weaving.

Q. 12. Look at the exhibit marked "Defendant's Exhibit Fabric," which is here put in evidence, and state what it is, or what stage of the manufacture of corsets it represents.

A. That is a blank corset as it comes from the loom.

Q. 13. What determines the distance of the top edge of the corset from the top of the bone-pockets?

A. The trimming of the top of the corset to the shape suitable to the wearer.

Q. 14. Which is done first—the formation of the bone-pockets or the trimming off of the top edge of the corset?

231 A. The trimming off of the top edge of the corset in some cases, and in others afterwards.

Q. 15. Which is ordinarily done first?

A. The trimming off.

Q. 16. What is it that renders it desirable or necessary to have the bone-pockets in a corset of different lengths?

A. Because it is needed higher at the front and back than at the sides, to fit the wearer.

Q. 17. Would a corset be of the proper shape for the market if the bones were all of equal length?

A. It would not.

Q. 18. Please look at Exhibit Johnson and say if you have read the same and understand it.

(Objected to as it does not appear that the witness is an expert in the art of weaving or in the legal construction of written instruments.)

A. Yes; I have read it, and understand it.

Q. 19. Taken in connection with the usual mode of manufacturing corsets practiced prior to 1856, does or does not the description contained in Exhibit Johnson describe such a corset as is described in the Cohn patent, and represented in figure 3 of that patent? and before answering the question, state whether you have examined the said Cohn patent.

(Objected to as leading, and as calling for expert opinion on matters in which the witness has not shown that he is experienced.)

A. I have examined the Cohn patent, and in answer to the question, I say yes; I understand it so.

232 Q. 20. In woven corsets, which is done first, the stopping off the bone-pockets, or the trimming of the top edge of the corset?

A. The trimming the top edge of the corset.

Q. 21. Is not that always the case where the pockets are stopped off by weaving?

A. Where they are stopped off by weaving, they are stopped off before the trimming.

Q. 22. How long have you known of such corsets as Exhibit Barnes as a common article of merchandise in this country?

A. Twenty years.

Q. 23. Do you know, of your own knowledge, in what manner the pockets for the bones in corsets were stopped off in England, at or before the date of Exhibit Johnson, independently of what you have read in that exhibit?

(Objected to, as the witness is not named in the answer as possessing a prior knowledge, and as what was done in England is not competent evidence to impeach the complainant's patent.)

A. I do.

GEORGE H. BARNES.

Subscribed and sworn to before me this 23d December, 1873.

JOSEPH GUTMAN, JR.,
Examiner, &c.

NEW YORK, *Monday, Jan.* 12, 1873—1 o'clock p. m.

Met pursuant to adjournment.

233 Counsel present: Mr. C. M. Keller, for complainant; Mr. W. C. Witter, for defendants.

L. W. SERRELL, being recalled for the defendants, deposes and says as follows:

Q. 1. Have you already been examined in this case?

A. I have.

Q. 2. State whether or not the use of two Jacquards in the same loom was well known before the year 1854, and give your authority.

A. They were. I have ascertained that fact from various publications and patents before that date, among which may be named Gilroy's publication on weaving, published in 1844.

Q. 3. Look at drawing now shown you, marked "Defendants' Exhibit Gilroy," and state what it was taken from and what it represents.

A. This drawing is a copy of enlarged size of the plate in the said work of Gilroy, marked "Example No. 6," and designated therein "Aurora Borealis Tie-up." In this diagram the connections are illustrated for two Jacquard mechanisms in one loom, and the connections from the respective Jacquard mechanisms passed to the heddle-eyes for the warps, there being two cords to the same heddle-eyes, so that those warps can be operated by either one Jacquard mechanism or the other.

(Defendants' counsel here puts in evidence the said copy drawing, which is marked "Defendants' Exhibit Gilroy.")

Q. 4. Have you the said book here; do you own it; if so, how long has it been in your possession?

234 A. I have the said book here. It was purchased by my father about 1848, and has been my property and in my possession since 1852. It is entitled "The Art of Weaving by Hand and Power, &c., by Clinton G. Gilroy, New York; George G. Baldwin, 25 Spruce street, 1844."

Q. 5. Please look at the said Exhibit Gilroy and state whether or not all of the cords in one of the two sets are in the condition or state in which they would naturally be when operated upon by the Jacquard, and if you answer in the affirmative, state in which of the two sets.

A. In the set of cords leading to the Jacquard upon the right they are in the positions they would assume while being drawn upon by the Jacquard mechanism. While that was being done the cords leading from the same warps to the other Jacquard mechanism would be loose. This looseness is illustrated by the curved lines of the cords leading to the left-hand mechanism.

Q. 6. Have you read the deposition of J. N. McIntire, taken on the 7th and 8th of January instant?

A. I have.

Q. 7. Is he correct or incorrect in what he says about the use of two Jacquards for weaving corsets? If you shall say he is incorrect, please explain wherein.

A. He is incorrect in his statements relating to the state of the art. Some of his statements are correct, but in the particulars which I shall name he is incorrect. In the specification of Johnson, referred to by him, a statement is made that his invention consists in the employment of the Jacquards in the loom, one of which affects the shape or contour of the corset and the other the formation of the double portion or slots for the introduction of the

235 whalebones. Following out the suggestions of Johnson, by a person skilled in the art, and having the knowledge—which could be derived from reference to the work of Gilroy, before mentioned—a man having a loom adapted to two Jacquard mechanisms, he would most conveniently employ them in the weaving of a corset in the manner stated by Johnson. To accomplish this, it would only be necessary to

connect the heddle-eyes with two cords, one leading to one Jacquard and one to the other, and the Jacquard mechanism would be brought into operation, either jointly or separately, according to the character of the loom and the part of the corset that was being woven. For these reasons, Mr. McIntire's statement, "that it was impossible, with the known state of the art, to thus employ two Jacquards," is incorrect. Furthermore, Mr. McIntire states that "it would be necessary to have the connections between these warp-threads intermittently made and broken." In this he is incorrect; because the cords that were not operated, leading to one of the Jacquards, would hang loose, while the cords leading to the other Jacquard would be drawn tight; furthermore, it would not be necessary to have the connection to one Jacquard cease and the connection made to the other Jacquard for the purpose of forming the single portion. For the before-mentioned reasons, the premises of Mr. McIntire are erroneous, and the deductions drawn therefrom equally incorrect.

Q. 8. To have the same warp-threads which enter into the double portions or pockets of a corset together with the single portion above the pocket simultaneously, and also enter into the contour or shape of the corset, one Jacquard performing the first of these duties and
236 another Jacquard the second, is it necessary to have the connections between these warp-threads and the two Jacquards intermittently made and broken? If it is not, state why not.

A. It is not necessary that the connections between the Jacquards and warp-threads should be intermittently made and broken, because the connections by the double cords to the respective Jacquards will always remain, regardless of whether one Jacquard is being used or the other.

Q. 9. In the use of two Jacquards in one and the same loom, is there, or not, any difficulty in having any thread of the warp manipulated at one time by one of the Jacquards, and at another time by another Jacquard? If not, please state why not.

A. There is not any difficulty, for the reasons named in my last answer.

Q. 10. With the uses of Jacquards, which were commonly known among weavers of corsets prior to 1854, would or not directions to stop off the bone-pockets in the weaving have been a sufficient explanation for doing it by the use of either two Jacquards or one Jacquard?

A. It would have been a sufficient explanation to any party familiar with Jacquard looms.

Q. 11. State whether or not it makes any difference, so far as stopping off the pockets is concerned, whether the corset is woven with two Jacquards or with only one. If not, explain why not.

A. It makes no difference whether two Jacquards are used or only one. Two Jacquards can be so arranged as to work in harmony
237 and stop off the pockets at the points required, or one Jacquard can be arranged to do the same duty.

Q. 12. If a person acquainted with the uses of Jacquards in weaving corsets had, prior to 1854, been told to stop off the bone-pockets in weaving the corset, at unequal heights, and in so doing to use two Jacquards—one to form the double part or pocket of the corset, and the other to form the contour—would or would not that have been sufficient instruction to such person to weave such corset, using therein two Jacquards? If it would, please tell why.

A. I think that would have been sufficient instruction. Although not a practical weaver myself, yet, with a knowledge of the art as it

existed previous to 1854, I believe I could have directed a good mechanic how to employ the two Jacquards in weaving a corset, using one to weave the pockets and the other to affect the shape or contour of the corset.

Q. 13. State whether or not it was necessary for anything to have been added to the specification, Exhibit Johnson, to have furnished full explanation to a corset-weaver how to weave a corset and to stop off the bone-pockets at the right places in weaving.

A. I do not think anything else was necessary than that which was contained in Johnson's specification.

Q. 14. With the state of the art as it existed in 1854 can you think of anything which Johnson could have added to his specification which would have improved it as a description how to weave a corset with the pockets stopped off at unequal heights in weaving?

238 A. The said Johnson appears to have been familiar with the art of weaving, and to have stated his invention in full and clear terms. I do not think anything else was necessary to a clear understanding of his invention. Of course the specification might have been elaborated, and drawings furnished, but that was not necessary to the understanding of the invention.

Q. 15. State whether or not the corset described in complainant's patent, on which this suit is brought, could be made as easily by the use of two Jacquards, as described in the Johnson specification, as by the use of one Jacquard. If it could, explain why.

A. It could be made as easily with two Jacquards as with one, and vice versa. If a man had a loom adapted to two Jacquards he could make corsets upon the same most conveniently by using them both. If his loom was adapted to only one Jacquard he could more easily use that in making a corset than to alter the loom to include two Jacquards.

Q. 16. State whether or not there is any distinction or anything said in the specification of complainant's patent as to the number of Jacquards to be used in weaving the corsets therein described.

A. There is nothing one way or the other.

Q. 17. State whether or not a corset woven by the use of two Jacquards, like the one described in the specification of complainant's patent, would be as much within what he describes as his invention as if it were made by the use of one Jacquard.

A. I understand the invention in complainant's patent to relate
239 to a corset, and not to any peculiar mechanism or Jacquards employed. Two corsets could be made like those described in complainant's patent, and be exactly alike, thread for thread, one made on a loom having a single Jacquard mechanism, and the other made on a loom having a double Jacquard mechanism.

Q. 18. State whether or not a corset like that represented by figure three of the drawing of complainant's patent could be conveniently woven by the use of two Jacquards in the loom.

A. It could.

Q. 19. State whether or not a corset woven by the use of two Jacquards like that described in complainant's patent, and represented by figure three of the drawings thereof would be as much within what is therein described as the invention of complainant as if woven by the use of only one Jacquard?

A. It would.

Q. 20. From an examination of two corsets, each having the pockets stopped off in the weaving at different heights, in one of which the pockets or double parts and the single parts above them were woven

by one Jacquard, and the contour or shape of the corset effected by the other Jacquard, and in the other of which the whole was effected by one Jacquard, could it, in your opinion, be told which corset was woven by two Jacquards and which by one?

A. It could not.

Q. 21. What instruction, if any, does that English specification, Exhibit Johnson, give respecting weaving of corsets which was not known to weavers using Jacquards previous to 1854?

240 A. It tells such parties to finish the pockets off square instead of terminating them in a point, and that these pockets are to be stopped off "at any required length in the corset" instead of always running the entire length, as was usually the case in woven corsets. The instructions relate to the peculiarity of the corset more than to the Jacquard mechanism employed in the loom.

Q. 22. Instead of having two Jacquards, as explained in the English specification, could the same work be done by using one Jacquard? If yea, explain how, briefly.

A. A Jacquard mechanism has under its control every warp-thread in the loom, and can be made to keep any warp threads up and any other warp-threads down at each throw of the shuttle. Hence a corset, such as described in said Johnson's specification, could be made by one Jacquard. Whether it could be made as easily as with two would depend upon the character of the loom, whether it was adapted to one Jacquard or to two Jacquards.

Q. 23. I think you have not wholly answered question 14. Please read the same. Make further reply if you have any.

A. I further reply I do not think of anything else that Johnson could have added to his specification which would have improved it as a description as to how to weave a corset with the pockets stopped off at unequal heights in weaving.

Q. 24. State whether or not a corset like that described in complainant's patent, and represented in figure three of the drawings,

241 could be conveniently woven by the use of two Jacquards in the loom as described in Exhibit Johnson.

A. It could.

LEMUEL W. SERRELL.

Sworn to this 12th January, 1874.

JOSEPH GUTMAN, JR.,
Examiner, &c.

Adjourned until Tuesday, January 13th, 1874.

JOSEPH GUTMAN, JR.,
Examiner, &c.

NEW YORK, *Wednesday, January* 21, 1874.

Met pursuant to adjournment.

Counsel as before.

(Plaintiff's counsel objects to all testimony which has been or may be taken after the close of the rebutting evidence on the part of the plaintiff, for the reason that after testimony was put in on the part of the defendants attacking the validity of plaintiff's patent, and after closing such evidence, the counsel for plaintiff merely put in rebutting evidence and carefully avoided putting in any new matter.

The right to put in objections was reserved to plaintiff's counsel before the commencement of the examination of Mr. L. W. Serrell, on this 12th day of January, 1874, on account of counsel's unavoidable absence.)

Mr. L. W. SERRELL, being cross-examined by counsel for complainant, deposes and says:

242 X Q. 25. What has been the extent of your practical experience in constructing, mounting, and operating looms with Jacquards?

A. I have made drawings of looms, and superintended their construction; and I have also had to act in obtaining patents for looms in connection with Jacquard mechanisms; but I have not practically fitted and used a Jacquard of a loom myself.

X Q. 26. Where were the looms put up, which were made from drawings made by you; and state what kind of looms they were.

A. On one occasion, I remember making an elaborate set of drawings for a positive-motion loom, for a company known as the Drummond Loom Company. I think it was set up in Twenty-fifth street, near Third avenue, and I think a party by the name of Glass constructed the loom. His machine-shop was in that immediate neighborhood, but I cannot give you his exact address from memory. There was another loom for which I made the working drawings; that was made at Utica, and which I had to go there to superintend. They were both of the same general character; they were among the early efforts in weaving, that resulted in the positive-motion loom, now made and used by the defendants. These looms were adapted to weaving plain fabric.

X Q. 27. Is not what you call positive motion, in your last answer, confined to the shuttle part of the loom?

A. The shuttle receives a positive motion; hence this term was employed.

X Q. 28. Give the titles of each and every publication in which
243 you have found described or represented two Jacquards employed as connected with one loom, except the book entitled The Art of Weaving, by Clinton G. Gilroy?

A. I have seen descriptions of looms in which two Jacquards are employed, in the Abridgements of English Specifications; I believe that I have in the publication known as Newton's London Journal; I do not now call to mind the names of other works, but I have seen descriptions of such looms in several publications. I have not had occasion to refer to them recently, which is the reason that I cannot state more definitely.

X Q. 29. Is not Newton's London Journal principally devoted to the specification of English specifications and patents?

A. It is, but not exclusively.

X Q. 30. Can you give the name of any one—English or American—patent containing a description of two Jacquards in connection with one loom?

A. The English patent of Johnson's which has already been introduced in this case refers to such a loom; I have no doubt I could furnish, at least, five or six such names if opportunity were allowed, but from memory I can give none.

X Q. 31. In your examination-in-chief you have referred to a plate in Gilroy on the Art of Weaving—plate No. 6, entitled "Aurora Borealis tie-up;" will you refer to the description of this tie-up, if any such can be found?

A. I have not had time to carefully examine the book, but I have not discovered any description of the parts represented upon that plate.

244 X Q. 32. Upon the examination of that plate alone, without description by the author alone, can you state positively that it was a tie-up for two Jacquards?

A. I can state positively on my knowledge of the art of weaving, both

as derived from the book in question as well as from information derived from other sources, that I understand the general principles involved in the use of the Jacquard. I am certain that a loom fitted with the connections shown in that diagram, Example No. 6, could be used with two Jacquards, and if that diagram is not intended to represent a loom employing two Jacquards it is unintelligible to me.

X Q. 33. In your answer to question No. 7, have you quoted the testimony of Mr. McIntire correctly?

A. I believe that quotation to be correct. I had a printed copy, and read to the commissioner from the same. Upon examination, the quotation appears to be correct.

X Q. 34. Is it stated anywhere in Exhibit Johnson in what manner the two Jacquards are connected with the warp to be woven?

A. The character of the connection is not stated.

X Q. 35. Do you believe that any sensible man, if he knew how to make a design, and mount a Jacquard loom to weave with one Jacquard a corset with a required contour and with the pockets for the whalebone, stopped off as in plaintiff's patents, would try to do it with two Jacquards?

A. I do not think he would try to do it with two Jacquards unless he happened to have a loom adapted to two Jacquards, in which case it would be very reasonable and proper to arrange his connections so as to employ both Jacquards.

245 X Q. 36. How many warp-threads are required for weaving, say, a twenty-four-bone corset?

A. That will depend upon the fineness of the texture of the fabric, the number of bones having nothing to do with the question. I should think the number of warps ranged from sixty to one hundred to an inch, making from a thousand to eighteen hundred warp-threads to the corset.

X Q. 37. Taking the range of the number of warp-threads in your last answer, if each warp-thread is to be connected with the two Jacquards, how many cords and needles would be required for the two Jacquards together?

A. Take, for example, a corset requiring one thousand warp-threads, and arranging a Jacquard to weave a plain corset; about six hundred of those warp-threads would require double connections; about four hundred of those warp-threads in the middle of the fabric need only have single connections. That would make a total of sixteen hundred connections to a thousand warps. That proportion of connections could be maintained if a greater or less number of warps was employed; and according to the distance that the gores extend inwardly from the edge of the fabric, so that number of connections will be increased or lessened.

X Q. 38. Will you state from what source you have derived the information that prior to 1854 Jacquards were employed in weaving corsets?

A. From publications, such as I have before referred to, and from communication with clients for whom I have obtained patents upon appliances used in corset-looms.

246 X Q. 39. When did you first apply for a patent for any appliance connected with the termining of the contour and the formation of the pockets in weaving corsets?

A. I cannot call to mind any instance in which clients sought patents touching upon the point inquired about. In obtaining patents upon corset-looms as early as 1861–'2, I think I understood from those clients that the Jacquard was employed to determine the contour of the corset in the manner well known to parties using Jacquard looms.

X Q. 40. For what part of Jacquard looms did you obtain patents in or about 1861 or 1862?

A. Take-ups and shuttles.

X Q. 41. When and where have you seen a loom with two Jacquards in which cords from the two Jacquards were attached to the same cord as shown in Exhibit Gilroy?

A. I don't remember seeing that in a loom.

LEMUEL W. SERRELL.

Subscribed and sworn to before me this 21st day of January, 1874.

JOSEPH GUTMAN, JR.,
Examiner, etc.

NEW YORK, *January 13th*, 1874—11 o'clock a. m.

Counsel as before.

J. BOYD ELIOT, a witness of lawful age, produced on the part of the defendants, having been by me first duly cautioned and sworn to
247 testify the truth, the whole truth, and nothing but the truth, in answer to interrogatories propounded to him by Mr. Witter, of counsel for defendants, deposes and says as follows:

Q. 1. What is your name, age, residence, and profession?

A. My name is John Boyd Eliot; age, forty-six years; residence, New York City; and profession is that of mechanical engineer and solicitor of patents, and during the last twenty years have been much occupied testifying as an expert in patent causes.

Q. 2. Please to state, briefly, what have been your opportunities for becoming acquainted with the mechanic arts, and what experience you have had in the matter of inventions and improvements therein, and the obtaining letters-patent therefor, as well as for becoming acquainted with the theory of mechanics?

A. I have endeavored to make myself familiar generally with all kinds of machinery as I could ascertain, either by reading or by observation, am familiar generally with the different branches of science, and specially with those as applied in the arts; have worked regularly in the shops in the construction of various kinds of machinery; have planned a great variety of machinery for various purposes; and, during the last twenty years, have solicited over two thousand patents pertaining to various branches of invention and many of them pertaining to the department of the manufacture of textile fabrics, the construction of looms, and their productions.

Q. 3. Have you read, and do you understand the contents of the letters-patent granted to complainant on which this suit is brought?

248 A. I have read a copy of said patent, and I do understand the invention therein described and claimed.

Q. 4. Have you read, and do you understand, the English specification to John Henry Johnson, No. 143, which is marked "Defendants' Exhibit Blue Book," and another copy of which is marked "Exhibit Johnson?"

A. I have, and do understand the same.

Q. 5. State whether, or not, you are conversant with the operation and scope of the mechanism known as the Jacquard; and whether your knowledge of them was obtained from reading or from observation?

A. I am familiar with the operations of what is known as the Jacquard mechanism, both from reading and from observation, having often seen Jacquard looms at work, weaving various kinds of fabric.

Q. 6. Have you ever seen the Jacquard employed in looms for the weaving of corsets?

A. I have, many times.

Q. 7. State whether or not you have made investigation and are acquainted with the state of the art of Jacquard weaving previous and subsequent to the date of said English specification, viz, 1854?

A. I have made considerable investigation as to the state of the art of Jacquard weaving, both prior to 1854, and since that time, and am familiar with a great deal of the art as it was practiced prior to and since that time.

Q. 8. State whether or not the use of two Jacquards in the same loom was well known before the year 1854, and give your authority.

249 A. It was well known prior to that time—not only the use of two, but many more, even as many as six; and one authority that I can give for such knowledge is a work entitled "The Art of Weaving, by Clinton G. Gilroy, Practical Weaver and Manufacturer," published in New York City in 1844.

Q. 9. Look at the drawing now shown you, marked "Defendants' Exhibit Gilroy," and state what it was taken from, and what it represents.

A. Said drawing is an enlarged representation of a tie-up represented in said Gilroy's publication, and given as "Example No. 6," being one method of arranging the harness among many others that are shown in the said publication. This tie-up is styled "Aurora Borealis," and it represents how two cards or sets of cards may be used in the same loom, and represents the cords that lead down to the eyes, through which the threads of the warp pass, as joined to the same eye, from the two sets of cards, and clearly illustrates how one set of cards may operate upon the warp at one time and another set at another time. The cords that lead from the right-hand set of cards, as represented in said drawing, are shown taut, or in the act of lifting the threads of the web, while the others are represented slack to show that they are at rest.

Q. 10. You speak in your last answer of cords leading down from cards; what do you mean by that?

A. I mean, of course, that the lines represented in said drawing indicate the direction the cord would have in leading from the Jacquard mechanisms down to the eyes, through which the web, or the

250 threads of the web, pass, and, of course, did not intend that the cords lead directly from the cards, but from the loops or hooks in the weaving mechanism that are acted upon by the needles, which are operated by the cards. I merely used the expression as the briefest method of stating what the drawing represented.

Q. 11. Have you read the deposition of J. N. McIntire, taken on the 7th and 8th of January instant?

A. I have.

Q. 12. Is he correct or incorrect in what he says about the use of two Jacquards for weaving corsets? If you shall say he is incorrect, please explain wherein, and give your reasons for your opinion.

A. He is manifestly incorrect in what he says concerning the use of the two Jacquards, in that portion of his deposition where he refers to the specification of the English patent of 1854, concerning which he says, in answer to question six, "it was not possible with the known state of the art to thus employ two Jacquards, by one of which the warp thread should be manipulated so as to produce the double weaving, or pocket portion, while by the other these warp-threads should be so controlled or operated upon as to produce the single weaving or single parts of the corset," for the very plain reason that ten years prior

to the time of the English patent to which Mr. McIntire has reference, the very thing which he says "it was not possible" to accomplish was clearly shown in the work to which I have already referred, namely "Gilroy's Art of Weaving;" and the method of arranging the tie-up, or the cords that lead from the Jacquard mechanisms, in a loom in which two sets of cards are used, is there clearly shown; and I have
251 also tried the experiment myself, in attaching an additional cord, or cords, to the eyes that control the web, and arranged them so as to open the shed at other times than when operated by one set of cards; and I find from such experiment there is no necessity whatever, as he states in the same answer, to have the connections between the warp-threads and the two Jacquards "intermittently made and broken;" but on the contrary, instead of two sets of cards being attached to the same warp-threads, a half a dozen, or more, might be so connected without any trouble whatever, it only requiring that the mechanism should be so arranged that when one set of cards is operating the others shall remain at rest. I can also further say that, as I understand said English specification, to which Mr. McIntire has reference, I would infer that Mr. Johnson himself was familiar with the fact that two cards, or sets of cards, could be so used, from the very language that he uses in said specification, in which is the following language:

"This invention relates to the manufacture of what are known as woven corsets, and consists in the employment of the Jacquards in the loom, one of which effects the shape or contour of the corset, and the other the formation of the double portions, or slots, for the introduction of the whalebones."

And then he proceeds to state what result is accomplished by the employment of these two sets of cards, as though it was manifestly evident to any one familiar with the operation of the Jacquard mechanism and its capacities that there would be no trouble whatever in effecting the result which he desired to accomplish. My opinion is, that
252 had such a thing never been accomplished before the time that Mr. Johnson desired to give the information as to how these corsets should be woven, or had there been any difficulty, in his mind, in the use of two sets of cards in producing such fabrics as he desired, he would have made further mention in said specification as to how said cards should be arranged to effect the purpose for which said specification was written. To me the specification is very similar to a simple order that a manufacturer would give to his workman for a certain style of goods, and he simply directs, or suggests, to them to use in the loom two sets of cards; and then proceeds to describe the goods that he desires to have made, as though it would be manifestly evident to them, on the receipt of such order, to arrange their looms for such a purpose. The state of the art, also, as to the capacities of the Jacquard looms prior to that time to which Mr. McIntire has reference, was so well understood, in both France and England, as was plainly shown by the production of various fabrics of very complicated and intricate patterns, that the workmen capable of producing such goods must, in my opinion, have been quite skillful enough to have done what he tells them to do in said specification, specially when there is not the least difficulty in arranging the looms to use not only two but many cards in connection with the same warp-thread, if desired.

Q. 13. To have the same warp-threads which enter into the double portions or pockets of a corset simultaneously with the single portion above the pocket, enter also in the shape or contour of a corset, one Jacquard performing the first of these duties, and another Jac-

quard the second, is it necessary to have the connections between these warp-threads and the two Jacquards intermittently made and broken? If it is not, say why not.

A. It is not necessary, for the simple reason that when the warp-thread is operated to form that portion of the fabric that gives shape or form to the corset so as to effect its contour, the other card that is to operate the web when the pocket is to be woven remains at rest, or may do so; but the fact is that such is the wonderful capacity of said looms that both sets of cards might be operated at the same time to assist each other, if desired, to open the shed or raise the web according to the pattern.

Q. 14. In the use of two Jacquards in one and the same loom, is there or not any difficulty in having any thread of the warp manipulated at one time by one of the Jacquards and at another time by another, or in having any thread of the warp operated at the same time by both Jacquards, or in having any warp-thread operated part of the time by either one of the Jacquards and part of the time by both, and the rest of the time by the other, and so on? If not, please state why not.

A. There is not any such difficulty, nor can be, in my opinion, for the simple reason that said warp-threads are operated by the motion of the eyes in the loom, through which they pass, and said eyes are operated by the tie-up cords that lead to the needles, which are acted upon by the cards, and the only thing that is necessary to be done to effect all the conditions asked for in the question is to cut the cards properly or with direct reference to such a result. There may be a separate set of cards for each separate movement of the threads, and there may also be, under the Jacquard system, a separate set of needles and
254 tie-up cords, or the same thing can be accomplished by one set of cards and one set of Jacquard mechanism for operating them; provided the pattern is of such a character that one set of cards can be made to hold all the cuts or perforations necessary to produce the fabric.

Adjourned until 2 o'clock p. m.

Q. 15. With the use of Jacquards, which were commonly known among weavers of corsets prior to 1854, would or would not directions to stop off the bone-pockets in the weaving have been a sufficient explanation for doing it by the use of either two Jacquards or one Jacquard?

A. In my opinion it would; for the subject was then so well understood that I think it was wholly unnecessary to give any instructions as to how it could be done.

Q. 16. State whether or not it makes any difference, so far as stopping off the pockets in the weaving is concerned, whether the corset is woven with two Jacquards or with one only.

A. None whatever.

Q. 17. If a person acquainted with the uses of Jacquards in weaving corsets had, prior to 1854, been told to stop off the bone-pockets in weaving a corset at unequal heights, and in so doing to use two Jacquards, one to form the double part or pockets of the corset, and the other to form the contour, would or would not that have been sufficient instruction to such person to weave such corset, using therein two Jacquards? If your answer shall be that it would, then say why.

255 A. It would have been quite sufficient; for, as I have already stated, I think it wholly unnecessary to have given any instruction whatever; for the reason that the capacities of the Jacquard loom were so well understood prior to 1854 that as simple a fabric as that, requiring so slight a change in the adjustments of the loom that any one at all familiar with the subject could easily produce the fabric by simply

cutting the cards to suit the several places for stopping the pockets. To effect such stoppage of the pockets in the process of weaving said corsets is one of the simplest and easiest operations that can be suggested in the process of weaving on a Jacquard loom; for it only requires that the cards shall be so cut that where the pocket is not wanted, one-half of the warp shall be raised at one time, or at each pick, and the other half at the other, while the portion where the pocket is to be formed only requires that one-fourth of the warp shall be raised at one time and three-fourths at the next time, or next pick; and in this manner the double fabric will be formed where the pocket is to be, and the single fabric where the pocket is not to be. Such a fabric is so simple in its construction that it might readily be woven on ordinary looms, in so far as pertains to the portion woven through the pockets.

Q. 18. State whether or not it was necessary for anything to have been added to the specification, Exhibit Johnson, to have furnished full explanation to a corset-weaver how to weave a corset, and to stop off all the bone-pockets at the right places in weaving?

A. It was not; for the simple reason that prior to the time of the said Johnson patent the subject was so well understood that no in-
256 struction was needed in the weaving of corsets, in so far as relates to the mechanism or the organization of the loom for the production of such articles; and, therefore, to have undertaken to give information on that subject is, in my opinion, wholly useless; and, as I have already suggested, I think Mr. Johnson so considered it when he made his application for a patent for the new article which he desired to have produced, and, therefore, made such brief mention as he has done, of how said pockets might be stopped off, and "at any required length in the corset."

Q. 19. With the state of the art, as it existed in 1854, can you think of anything which Johnson could have added to his specification, which would have improved it, as a description how to weave a corset with the pockets stopped off at unequal heights in weaving?

A. Taken in connection with the state of the art as it existed at the time Johnson made his application, I cannot think of anything that could be added to said specification that would make it more complete. It is concise, and yet clearly sets forth, exactly, the improvement which he proposed to introduce. It suggests what had been the practice before, and what change he proposed to make; and so clearly, in my opinion, is his improvement described, that there can be no mistake about it, to any one at all familiar with such matters.

Q. 20. State whether, or not, the corset described in complainant's patent, on which this suit is brought, could be made as easily by the use of two Jacquards, as described in the Johnson specification, as by the use of one Jacquard. If it could, explain why.

A. It could, for the simple reason that, as already stated in some
257 of my previous answers, there is no difficulty in using two or more sets of cards for the production of the fabric, and it is a very simple matter to so cut the cards and to arrange them, in combination with suitable Jacquard mechanism, as that one set of cards may weave the single fabric, and one set the double fabric, or where the pockets are. The only objection that I can possibly see to the use of two sets of cards is that I think it is useless to use two things for doing the work that can readily be done by one, but I can conceive that it would be perhaps a little easier for me to keep in my mind the design for cutting the two sets of cards than for the one set. But to one skilled in such matters, the cuts for the contour of the corset might be

made through the entire set, and then the others for the pockets made afterwards, and added to them.

Q. 21. State whether or not there is any distinction, or anything said in the specification of complainant's patent as to the number of Jacquards to be used in weaving the corsets therein described.

A. None whatever.

Q. 22. State whether, or not, a corset woven by the use of two Jacquards like the one described in the specification of complainant's patent, would be as much within what he describes as his invention as if it were made by the use of one Jacquard.

A. It would. Two corsets woven on a loom or on two looms, one by the use of a single set of cards and the other by two sets, could not possibly be distinguished from each other provided the mechanism was in perfect working order.

Q. 23. When you use the expression "single set of cards," and
258 the expression "two sets," do you, or not, consider those expressions as equivalents to my expressions in the question, "one Jacquard" and "two Jacquards" respectively? If you do not, please to answer again the last question.

A. Of course I meant Jacquards, and have so meant all the way through in all of my answers.

Q. 24. State whether, or not, a corset like that represented by figure three of the drawings of complainant's patent could be conveniently woven by the use of two Jacquards in the loom?

A. It could with the greatest ease.

Q. 25. And would such a corset, or not, be as much within said patent as if woven by the use of one Jacquard only?

A. It would; for the simple reason, as already stated by me, that it is wholly immaterial whether one Jacquard or two is used, so far as the production of the fabric is concerned.

Q. 26. From an examination of two corsets, each having the pockets stopped off in the weaving at different heights, in one of which the pockets or double parts and the single parts above them were woven by one Jacquard, and the contour or shape of the corset affected by the other Jacquard; and in the other, of which the whole was affected by one Jacquard, could it, in your opinion, be told which corset was woven by two Jacquards and which by one?

A. It could not.

Q. 27. What instruction, if any, does that English specification, Exhibit Johnson, give respecting weaving of corsets which was not known to weavers previous to 1854?

259 A. It gives the instruction of how to weave the pockets in the corsets differently from what had been done before. Instead of running said pockets the entire length, as had been done before, and also instead of terminating them in a point as before, said pockets were to be finished by weaving, with their ends square, and were only to extend at any required length in the corset; or, in other words, they were to be made with all the completeness of sewn corsets, made by hand; that is, the pockets were to be stopped off precisely as the pockets in corsets made by hand, in so far as relates to their length; and also as the hand-made corsets, as it relates to the shape, and this result was to be accomplished by weaving.

Q. 28. State whether, or not, a corset like that described in complainant's patent, and represented by figure three of the drawings, could be

conveniently woven by the use of two Jacquards in the loom, as described in Exhibit Johnson.

A. It could.

JOHN BOYD ELIOT.

Sworn to this 13th January, 1874.

JOSEPH GUTMAN, JR.,
Examiner, &c.

Examination adjourned until Mr. Keller can attend.

JOSEPH GUTMAN, JR.,
Examiner, &c.

J. BOYD ELIOT, being further examined by counsel for defendants, deposes and says:

260 Q. 29. Have you seen lately a loom weaving corsets which employed two Jacquards therein? If you have, please state when and where, and what was effected by one Jacquard and what by the other; making your answer pretty full on these points.

A. I have seen recently a loom arranged to employ two Jacquards in the production of corsets. I saw it the day before yesterday, at the works of the United States Corset Company, on Twenty-third street, in this city. The operation was performed by arranging one set of Jacquards by the side of a loom which already contained one set, and the cards were so arranged as that those that were intended to effect the contour of the corset operated the Jacquard mechanism in the loom as it had previously done when only one set of Jacquards were used. Another set of cards to effect the second set of Jacquard attachments was arranged so as to weave or effect the weaving of the pockets, and the tie-up cords that lead from the hooks of said second set of Jacquards were carried down to and attached close to the eyes, or mails, through which the warp was originally passed. With this arrangement the loom was set in motion, and wove so much of the corset as belonged to its contour or shape, and all that portion except where the pockets should be placed. Whenever a pocket was to be woven the operator of the loom stopped the first set of Jacquards and started the second, and the pocket was formed in the same manner as had been previously done when only one set of Jacquards had been used.

Q. 30. Would there be any difficulty in having the Jacquard that was not to be used stopped, and the one that was to be used put in motion automatically, according as it was desired to weave contour or pockets?

261 A. There would not be any such difficulty, as it would be a very simple matter to change the motion from one to the other by simply introducing a cut in one of the cards, which could operate on shifting mechanism as a clutch or some similar device to change from one to the other.

Q. 31. If it were desirable to operate both Jacquards continuously, could or could not that be done? And if you should say it could, please state how.

A. It could be done very easily by simply cutting the cards for each set of Jacquards, to correspond to their proper work, one portion to act upon the warp in weaving the contour, and the other in weaving the pockets, or part in one and part in the other, as a designer might choose to arrange them.

Q. 32. Who was present at the time you speak of as having seen a loom employing two Jacquards in the operation of weaving a corset?

A. Mr. James Lyall, William H. Lord, and Charles Saatwever, and a woman who attended the loom, whose name I do not remember, and one or two others whom I do not know.

And, being cross-examined by counsel for complainant, says:

(In addition to the general objection heretofore mentioned as to the inadmissibility of the evidence of the witnesses produced by the defendants since the complainant closed his rebutting evidence, it is objected to this expert that he was not called and examined by defendants in making out their defense.)

262 X Q. 33. State fully what practical experience you have had in constructing, mounting, and operating Jacquard looms.

A. Personally I have not constructed any looms of that kind. I have studied their operation frequently during the last fifteen or twenty years, and have seen the operation of mounting such looms practiced a good many times, and I have tried some experiments, and suggested others which I have seen tried in the operation of such looms.

X Q. 34. About what length of time, in the forty-six years of your life, have you devoted to the study of the art of weaving?

A. It is very difficult for me to even approximate the length of time, but I should suppose some six months in all.

X Q. 35. In what establishment besides the defendants' have you witnessed the counting of Jacquard machinery for the weaving corsets?

A. Limited to the production of corsets alone, I have not witnessed the mounting of Jacquard looms in any other establishment.

X Q. 36. In what establishment besides the defendants' have you seen the loom with two Jacquards, having the cords of the two Jacquards connected to the same warp threads?

A. None other that I remember of.

X Q. 37. In the specification Exhibit Johnson, referred to in your examination-in-chief, will you state whether the two Jacquards were to be operated together during the whole weaving of, say half a
263 corset, or the operation of that one which is to determine the contour of the corset suspended, while the other determines the weaving and stopping off of the pockets?

A. Said specification does not state in so many words whether they were to be operated together or not, but, judging from the state of the art with reference to such looms at that time, I am well satisfied that the two Jacquards were intended to be used separately, and also from the fact that in said specification their operations are referred to as being performed separately, as in the following language: "One of which effects the shape or contour of the corset and the other the formation of the double portions or slots for the introduction of the whalebones." My opinion is that one reason for the use of the two Jacquards in the same loom was to afford some relief in the operation of the pedals in working the loom, as one of the Jacquards could be attached to one pedal to perform one portion of the work, and be operated by one foot of the workman during the weaving of the contour, for example, and the other Jacquard could be attached to the other pedal and operated by the other foot. And, in this manner, the operator could have some relief in the operation of weaving, which would not otherwise be so easily obtained.

X Q. 38. Do you understand my question, as having inquired as to any reasons why two Jacquards are to be used?

A. I do not.

X Q. 39. What state of the art do you refer to in the beginning of

your answer to cross question 37? Give the titles of the works, or
264 of the patents in which two Jacquards were to be used in the manner you fancy they were intended to be used in Exhibit Johnson by the author of Exhibit Johnson. Understand my question as calling for specific information, and not generalities.

A. I do not remember, specifically, the titles of any works or patents that state two Jacquards were to be used, as I have stated in my answer to said question, but there is, running through the history of the Jacquard loom, as it was originated by Jacquard, and also improved upon by others, in various publications, as, for example, "The Art of Weaving," by Gilroy, articles in the London Mechanics' Magazine, and other publications containing papers on the subject of weaving, the titles of which I cannot now recall, the fact that Jacquard looms, or looms with two Jacquards, for weaving were used, and that they were operated by the pedals, as I have stated, whether for the reason that I have given in my answer to said question, I cannot say.

X Q. 40. How long did you see the loom working at defendants' with two Jacquards, referred to in your testimony?

A. I saw it at different times; long enough in all to weave as much as would make half a corset, at least.

JOHN BOYD ELIOT.

Sworn to this January 21, 1874.
JOSEPH GUTMAN, JR., *Examiner, &c.*

Adjourned until 11 o'clock a. m., Thursday, January 22, 1874.
JOSEPH GUTMAN, JR., *Examiner, &c.*

265 NEW YORK, *Monday, Jan.* 26, 1874—3 o'clock p. m.

Met pursuant to adjournment.

Counsel as before.

Mr. John Boyd Eliot, being re-examined by Mr. Witter, says:

R. D. Q. 41. In your answer to cross-question No. 39, you speak of the London Magazine as showing the state of the art regarding the use of two Jacquards in a loom. Will you please refer to that work more particularly, giving the title and the particular locality where the information is to be found in said work, and state what you find therein?

(Objected to by Mr. Keller, as immaterial to the issue, as the 39th cross-question to the witness on his cross-examination was not with a view to ascertain what he might find in this state of the art by an after-search, but on what positive knowledge in his mind he had testified in chief.)

A. I have referred to said publication, and find it entitled "The Mechanics' Magazine, Museum Register, Journal and Gazette," published in London in 1836, and on referring to No. 662 of said publication, dated Saturday, April 16th, 1836, I find illustrated and described what is entitled "Rooke's Improvements in the Jacquard Loom." On page 18 I find from the preface to the article the editor of the magazine states that the following description is extracted from the Transactions of the
Society of Arts. And in said article, after a general description
266 of the construction and operation of a Jacquard loom, there follows a description of Mr. Rooke's improvement. And from said description I find that the object of said improvement was to relieve the band of the cards in the ordinary Jacquard loom from all the repeating cards, and to cause their work to be done by the use of a second

treadle, and, in so doing, thereby ease the weaver by the more equal use of his legs on two treadles, and at the same time save a considerable expense and the bulk of the cards. From said article I quote as follows: "For this purpose Mr. Rooke constructs a very small Jacquard machine, and places it at the back of a larger one and at right angles to it. This is worked by a treadle at the other foot. With this small machine he uses a little band, containing no more cards than there are variations in those repetitions, of which the great band of cards is thus relieved." Referring to the figures in the drawings on the 17th page of said publication, and also to the description of said drawings, I find that the lifting cords that are connected with the small Jacquard are to extend down to a point just above the cumber or harness board of the loom, and there be attached to other cords leading also from the principal Jacquard mechanism; and the arrangement of the several cords is such that the warp may be lifted by the smaller Jacquard, already referred to, as well as by the larger. Said article recites, after a somewhat lengthy description of the connections of the two Jacquards in one loom, as follows: "Thus, either machine will lift the shafts, so that there are three ways that the warp can be raised, first, by the shafts and small machine; secondly, by the shafts and large machine, and, lastly, by the large machine in the usual variable portions without the shafts." I also find "figure seven shows two lifting cords, 'x'
267 and 'c,' proceeding from the two machines toward the compass-board, just above which they join, and then pass through to the end of a shaft, 'd;' 'b,' 'b,' 'b,' show three of the usual lifting strings, one up, the others down; they have loops, 'b b,' through which the shaft passes, so that they can go up singly, like the one shown raised; but when either machine lifts a shaft it takes all up together." By such an arrangement of the harness in a loom it is very evident that the two Jacquards were used in the same loom, and for the reason, or one of the reasons, that I gave in a previous answer concerning a division of the labor in operating a loom with two Jacquards. I also find that figure six is a "side view with respect to the loom, and an end view of the compass-board." It shows the lifting cords, "x x," divided, one-half to the right and the other to the left, so as to be lifted by hooks at each end of the frame, "b." "'c c' are the lifting cords from the small machine." The article recites: "Here one-half is hid behind the other, the hidden part proceeding to the other part of the compass-board, (as shown in figure one.) The dots at the lower 'c' show where they divide into three—of course the higher they are divided the less will be the divergence of the cords; then they are joined to the cords, 'x x,' just above the compass-board, 'a,' as seen in figure eight; 'b' shows the usual lifting cords from the Jacquard machine placed between the additional ones."

(Counsel for defendants puts in evidence the book referred to in the above answer, and which is marked, "Defendant's Exhibit, Mechanics' Magazine.")

268 NEW YORK, *February* 6, 1874—11 a. m.

Present: Counsel as before.

J. Boyd Eliot appears for further examination.

R. D. Q. 42. What, if anything, is the difference, so far as the practicability of weaving corsets by the use of two Jacquards is concerned, whether or not shafts be used as described in the Mechanics' Magazine, to which you have referred?

A. There is no difference whatever, as shafts may be used if desired or not without the least difficulty.

R. D. Q. 43. Explain for what purpose shafts are used, as described in said Mechanics' Magazine.

A. They are used for the purpose of simplifying the Jacquard movements or reducing the number of needles, inasmuch as one needle can perform the operation of lifting as many warp-threads as may be attached to a shaft.

R. D. Q. 44. What can you say as to whether or not a corset like that described and claimed in complainant's patent can be woven by the use of two Jacquards in a loom using shafts as well as in any other way, whether by one Jacquard, or more than one?

A. It can be done just as well, for the reason that where the pockets are to be formed in the said corset the shafts may be used for lifting the web for each pocket, and in that case as many warp-threads would be attached so as to be lifted by a shaft as to effect the plain or single portion of the corset at the end of the pocket, or where it is stopped off for each pick, and another set of threads, or those required to weave the double portion be attached to another shaft, and by such an ar-
269 rangement two shafts would be required to weave the plain or solid portion at the end of the pocket, and four shafts to weave the open or double portion of the pocket, thereby requiring six shafts only to form a pocket in weaving plain fabric, and these several shafts can all be operated by one needle to each, or one lifting-cord, having a bridle extending from each to each end of each shaft, and if desired, said shafts so attached could be operated by a separate Jacquard. But this in power-looms is not at all necessary, as there is no necessity there for the division of labor in lifting the lingos or weights that are attached to the lower ends of the cords.

R. D. Q. 45. State whether or not this could be repeated for as many pockets as were required to be of different lengths.

A. Of course it could, requiring simply the same kind of mounting for each pocket, only making the change of adding or reducing the number of warp-threads to be attached to the shafts that form the solid portion of the fabric where the pockets are to be stopped off, thereby varying the length of the pocket.

R. D. Q. 46. State whether or not there is any indication of the use of shafts in the Exhibit Gilroy heretofore referred to.

A. None whatever, for the reason that said exhibit is precisely what it is styled in said work—an example to illustrate a peculiar kind of tie-up, and the portion where the first set of cross-lines are shown (first from the top) represents the position that the cords would have one to the other at the cumber-board. It is not, in my opinion, intended to represent the cumber-board itself, but simply to represent the
270 relative position of the lifting cords one to another as would appear if the cumber-board were shown in perspective or where we could see the several cords, one behind the other; as, for example, in the four cords at the upper left-hand corner of said portion of the diagram where they are shown, as changed from an inclined to a vertical direction; said cords could not otherwise be shown as one in front of the other, and their relative proper position to each other than as illustrated in this diagram, or when the cumber-board is shown in perspective, as already mentioned. Following the round spots at the intersection of each cord with each cross-line down diagonally through to the bottom line, I find illustrated the relative position that the several lifting cords would have one to another at the end of the cumber-board or

through the first set of guides in said cumber-board, and the spaces that are left between every four cords indicate where the warp-threads are to be operated by the second Jacquard, leaving thereby space enough for one extra cord in the diagram, and said cord, it will be observed, comes from the top of the exhibit, or near the top, in a diagonal direction, from the right down to the left-hand corner, and there connects with one of the warp-threads, which is also connected with one that is shown in the set to which I have referred, as passing through or at the end of the cumber-board, and which would pass through the cumber-board at the extreme left-hand corner and farthest to the rear, regarding the bottom of the exhibit as the front. Consequently this diagram teaches that said cord is to be attached so as to be connected with the same warp-thread with which the first lifting cord of the second Jacquard is connected. The second set of cross-lines, or those at the bottom, are used for the same purpose as the first set to which I
271 have referred, which is to indicate the relative position of the lifting cords from the second Jacquard, and where they are to be attached in their relative positions in the formation of the fabric with the other set of lifting cords or those in the first Jacquard. For example, to show what warp-thread shall be operated by the first two cords leading from the first and the second Jacquards, as indicated by the said diagram, calling those first that are farthest to the left in said diagram, we are to understand that the first lifting cord of the first Jacquard is to be connected with the first lifting cord of the second Jacquard, so as to operate relatively with the cumber-board at the fifth thread of the warp, counted from the back of the cumber-board, and those two are to act upon that thread in that position alternately. So also the eighth lifting cord from the first Jacquard (from the rear of the cumber-board, but in the first row at the end of the board) is to be connected with the second lifting cord of the second Jacquard, and so on through the rest, as they are but duplicates of what I have already explained. The whole diagram is simply to illustrate the positions of the various cords leading from the first Jacquard, from the rear to the front of the cumber-board, and where they are to be connected with cords leading from the second Jacquard so as to form a peculiar style of fabric, one figure of which may be fully understood by the arrangement of the several cords represented in the first square where the cross-lines intersect the vertical lines at the left hand of said example.

R. D. Q. 47. Suppose shafts were represented in said Exhibit Gilroy, what difference, if any, would that make as to the practicability of
272 weaving corsets in that manner like that described in complainants' patent or Exhibit Johnson?

A. No difference whatever.

R. D. Q. 48. You have said that you were present during the weaving of corsets at the U. S. Corset Company's factory. On the occasion referred to by you in your testimony, state whether the cords from the two Jacquards became entangled, or showed any tendency thereto.

A. They did not show the least tendency of becoming entangled.

R. D. Q. 49. Did any of them break?

A. They did not; not while I was present.

R. D. Q. 50. Can you give any other reason why you say that shafts are not represented in Exhibit Gilroy?

A. If the cross-lines referred to, either those above or those below, were intended to indicate shafts, then they would have, so far as said example illustrates the tie-up for the loom, four lifting cords to each shaft, as there are four connections shown with each cross-line; and so, ac-

cording to said example, there would be many connections made across the web from each shaft to the Jacquard, which, in my opinion, would be a very foolish mounting of a loom, and would save nothing by the use of shafts, provided they were stiff enough to lift the warp without intermediate connections.

And being recross-examined by Mr. Keller, he says as follows:

R. X Q. 50. In the Jacquard arrangement described as Rooke's
273 improvement in Mechanics' Magazine, to which you have referred, are the shafts represented by the letter D?

A. They are.

R. X Q. 51. Are not these shafts rods which extend entirely across the entire warp mounted in the loom, and projecting each side of the warp?

A. They are, and do so project.

R. X Q. 52. Are not all the cords of the small Jacquard connected with the ends of these shafts, outside of the warp, mounted in the loom?

A. They are.

R. X Q. 53. Are not the cords, from the main or figuring Jacquard, which are connected with the cords of the small Jacquard, so connected outside of the warp, and on each side of the warp?

A. They are.

R. X Q. 54. Is not the sole purpose of the small Jacquard to operate the warp-threads for the weaving of the ground of the fabric alone; such, for instance, as a twilled ground?

A. That would depend upon what threads of the warp were connected with the shafts, and how the cards were cut for operating the small Jacquard.

R. X Q. 55. Is it not stated in the description of Rooke's improvement that the small Jacquard is for the weaving of the ground?

A. It is stated in said work that "Mr. Rooke's improvement relieves the band from all the repeating cards which form the ground;" and in the description of their operation and connection with the other portions of the loom it does explain how they will effect such an object.

274 R. X Q. 56. After a loom has been mounted, with part of the warps connected with the shafts, as in Rooke's improvement, can any one shaft lift any more than the warp-threads that have been connected with it at the time when the loom was mounted?

A. It cannot.

R. X Q. 57. Then if a set of shafts in such a loom be connected with the warps so as to weave the double cloths for the open part of the pocket, and as a single cloth for the stopping off and beyond, can that set of shafts be used to weave any other pocket that has not precisely the same length of double cloth and single cloth relatively to the selvedge of the material being woven?

A. It cannot.

R. X Q. 58. Examine the fabric of the corset now put in evidence, and marked "Plaintiff's Corset Exhibit Eliot No. 1," along the pockets and the single cloth beyond, and state how many shafts would be required to weave any one of the pockets and single cloth at the end.

A. As I estimate the number of picks in forming one of said pockets and the single part beyond, it would require seven shafts in forming that peculiar kind of fabric, part of which is twilled over the surface of the pocket portion, and part of which, in the plain portion at one end of the pocket, is ribbed, and formed so as to give shape or contour to the corset.

R. X Q. 59. How many did you say it would take when you thought

the question called for the number that would be required for the double part of the pocket; didn't you say forty-eight?

275 A. I thought the question referred to all the pockets in the corset, and I did not estimate at all or have in my mind the fabric beyond, neither did I include the twilled goods.

R. X Q. 60. In first answering that question, were not these your words: "It would require, by one method of mounting the loom, forty-eight shafts to weave one of said corsets?"

A. Those were my words; but I had in my mind when I uttered them, and intended to say so when I uttered them, "one set of pockets."

R. X Q. 61. Just count the number of picks in each of the double cloths of any one of the pockets of the said corset.

A. I have so counted them.

R. X Q. 62. State how many there are.

A. I make the number nine.

R. X R. 63. State what kind of cloth the inner face is composed of, whether single or twilled cloth.

A. Portion of it is single and part of it is ribbed.

R. X Q. 64. How many shafts will be required for the inner cloth of any one of the pockets?

A. Three.

R. X Q. 65. The upper cloth is twilled, is it not, at the pockets?

A. It is.

R. X R. 66. Just count and see how many twills there are in the upper cloth of the pockets.

A. It is only single twilled, I believe.

276 R. X Q. 67. The twills form ribs, do they not, that are inclined at an angle of about 30 degrees with what may be termed the axis of each corset?

A. They do, about that.

R. X Q. 68. In view of that does it not require that for each pick in succession different warps have to be raised to the surface to form such ribs?

A. I believe it would.

R. X Q. 69. Then, would it not require one shaft for each pick in weaving the upper cloth of any one pocket?

A. It would of that kind of goods.

R. X Q. 70. Now, then, sir, how many shafts would be required to weave two double cloths of any one pocket in that corset and to weave the single cloth beyond the pocket?

A. I think about twenty-one.

R. X Q. 71. How many of the pockets in that corset have the double cloth of the same length and the single cloth beyond of the same length from the selvedge of the cloth before the upper edge of the cloth was trimmed?

A. I cannot tell, as there is no selvedge shown on the corset, and have no place to measure from.

R. X Q. 72. Look at the corset cloth, exhibit illustration, which has not been trimmed, but which has marked in red where the pockets have been stopped off, and state how many of the pockets in that exhibit have the double cloth of the same length and stopped off at the same distance from the selvedge.

A. As near as I can estimate without counting the threads,

277 there are four of one length, three of another, and one of another—in one-half of the cloth; the other is like it.

R. X Q. 73. That, then, would require three times twenty-one shafts

to produce corsets with pockets such as in Exhibit Eliot, assuming that the pockets and single cloths beyond the pockets would be of the lengths as shown in exhibit illustration?

A. It would for that kind of goods, and provided my estimates are correct with reference to the number of picks for forming said pockets.

R. X Q. 74. What space would be occupied in the direction of the length of the warps of the loom by the sixty-three shafts?

A. That would depend upon the thickness of the shafts; there need not be any more space occupied than is now occupied by the cords and lifting-hooks of the Jacquards.

R. X Q. 75. Have you ever seen a Jacquard loom mounted with shafts; and, if so, when and where?

A. I do not remember to have seen one so mounted anywhere.

R. X Q. 76. Taking the dimensions, or, rather, the relative size of the shafts and cords represented in figure eight of the engravings accompanying the description of Rooke's improvements in Mechanics' Magazine, and keeping in your mind's eye the usual size of the cords of the Jacquard, and that the shaft must pass through a loop in each cord which it is to operate, and then state, as near as you can, what would be about the thickness of a shaft.

A. The shafts marked "d," in the illustration referred to, have
278 very great difference in their dimensions, some of them being four or five times as large as others. If I take the smallest size which are mounted in the loom and shown in working position, and were to compare it with the size of the cords ordinarily used, they would seem to be very small splints or slivers of material, probably about an inch or so in width, whereas, if I take the larger figures to make the same comparison, they would probably indicate about two inches in diameter. But I regard both of those figures as out of all proportion to the rest of the loom, and as mere sketches to illustrate the position of the different parts without attempting to indicate their proportions or dimensions.

R. X Q. 77. Is it stated anywhere in the description of Rooke's improvement that the shafts are to be lifted to different heights as they are farthest from the line where the cloth is beaten up by the reed?

A. I do not see it so stated.

R. X Q. 78. There being sixty-three shafts in the loom, if the shaft nearest the shuttle-race be lifted to, say three inches, to form the required shed for the passage of the shuttle, how high should the one farthest from the shuttle-race be lifted to form a shed sufficient for the passage of the shuttle?

A. That would depend entirely upon the thickness of the shafts, which I have said need not occupy any more space than the present harness, as they may be very easily made of bars or strips of metal, with nicely rounded ribs, top and bottom, making them very stiff and strong and compact, and not requiring as much room probably as the present harness.

R. X Q. 79. What amount of space in the direction of the
279 length of the warps is occupied by the harness of the looms at defendants' establishment.

A. It varies very greatly, depending upon the kind of work to be done, and I have not measured any of them.

R. X Q. 80. about how much do they differ in the space occupied in the direction of the length of the warps? My question is limited to the corset-looms.

A. Probably four or five inches. I cannot tell.

R. X Q. 81. About how much space was occupied by the harness in the

direction of the length of the warp on the loom which produced Exhibit Johnson Corset No. 2?

A. I should guess from some eight to ten inches; but it is mere guesswork, for I do not remember anything very distinctly about the size. One thing I do know, that there is very little difficulty in making it a great deal wider if required.

(That part of the answer beginning "I do know" objected to as not called for by the question, and as volunteer on the part of the witness.)

R. X Q. 82. Are the structure, forms, and dimensions of shafts described by you in your answer to the R. X Q. 78 found in the description of Rooke's improvement in Mechanics' Magazine, or in any other description, publication, or patent that you have ever seen connected with the construction of Jacquard machinery?

A. Not that I remember of.

R. X Q. 83. What about would be the width of the cumber-board for mountings such as represented by Exhibit Gilroy? I mean by width the direction of the length of the warps in the loom.

280 A. That would depend entirely upon the size of the cords and the spaces between them. If I have not made any mistake in counting, this figure would require about fifty cords in width of the cumber-board.

R. X Q. 84. How many holes are represented in the said exhibit for each of the four sections, running diagonally?

A. Those small circles on the exhibit which I suppose are referred to in the question as holes are not intended to represent the holes in the cumber-board, in the location in which said cords would pass, but merely the number of holes which would be formed in the cumber-board at its left-hand end; and the number in the first square, where the greatest number of lines are shown, is thirty-four.

R. X Q. 85. Is there not the same number of holes, or small circles, as you call them, in each one of the four divisions?

A. There is, I believe.

R. X Q. 86. Does not the said exhibit represent four sets of cords, each set consisting of thirty-two cords, extending from the Jacquard on the left-hand side to the four series of holes, or small circles, as you call them, one cord going to each one of the said small circles, most of them diagonally, and then all of them from the said small circles, extending down vertically and in lines parallel to each other; and, if not, what, then, do the said small circles represent?

A. They represent, on said exhibit, not the holes in the cumber-board, but the points on said exhibit, where each cord would change its
281 direction if passed through a cumber-board in rows parallel to the end of the cumber-board. In other words, as I understand the question, I am enquired of if said circles do not represent holes in the cumber-board, and that said holes are intended to be placed in the cumber-board in precisely the same position relatively to the sides and end of the parallelogram formed by the transverse and vertical lines shown in said diagram; whereas my meaning is that the holes in the cumber-board, through which those several cords pass, will constitute simply four rows of holes parallel to each other across the end of the cumber-board and at its left-hand end.

R. X Q. 87. Will you draw a line on Exhibit Gilroy, or mark any one of the lines on the said exhibit by the letter "A" on one end and letter "B" on the other, representing the direction of the line parallel to which each division of thirty-two cords would pass through the cumber-board according to your answer to the last preceding question?

A. I have so marked said line, and indicated it in pencil, by the letters A and B.

(The commissioner is requested to put the said letters in ink.)

R. X Q. 88. Then, I understand you, all the cords from the Jacquard, on the left-hand side of said exhibit will pass in four sections; those of the first section, on the left-hand side, through thirty-two holes, in a row parallel to the line A B; the next set, through thirty-two holes, in a row parallel to the line A B; the third set, through thirty-two holes, in a row parallel to the line A B; and the fourth set,
282 through another row of thirty-two holes, in a line parallel to the line A B, but at the right-hand side of said exhibit. Am I right in this; and, if not, how otherwise would it be?

A. Not quite correct, but the several sets of thirty-two cords each would pass through the first four rows of holes next to and parallel to the line A B. In other words, all the cords represented as leading from the principal Jacquard shown in the said diagram would pass through the first four parallel rows of holes at the extreme left-hand end of the cumber-board where the line A B is.

Examination adjourned to Saturday, February 7th, 1874, at 10 a. m

NEW YORK, *February* 7, 1874—10 a. m.

Present, counsel as before.

Recross examination of Mr. Eliot continued.

R. X Q. 89. Did I understand you to have stated in your former examination that the cords from the small Jacquard at the right in Exhibit Gilroy, are attached to the same mails as some of the cords of the main Jacquard on the left of the said exhibit?

A. I don't remember exactly what I did say; but whether or not I said so then, I can now say that I see no reason why they may not be attached to the same mails or to cords leading to the same mails, which would be the equivalent, or they may be attached to different mails, one behind the other, through which the same warp-thread passes.

283 R. X Q. 90. Are they, or are they not attached to the same mails?

A. So far as the drawing is concerned, it does not show, as I understand said drawing. It simply indicates that the two sets of Jacquards are to be connected to the same warp-threads at certain positions relatively to each other, as, for example, the lifting-cord at the extreme right-hand end of the diagram at the letter A is to be connected with the first lifting-cord of the small Jacquard in such a manner that the small Jacquard shall operate relatively to the rest of the cords as the fifth lifting-cord counted in the same row from the rear of the cumber-board in the first row, beginning at the letter A. As to how such connection is to be made, whether with the mails or otherwise, as already stated, I regard as wholly immaterial, and not taught or attempted to be by said diagram.

R. X Q. 91. Look at the Exhibit Gilroy on the left-hand side and state in what direction the cords from the small Jacquard on the right-hand side, if connected with the warps in either of the modes mentioned by you, would lift the warps?

A. There is nothing in said exhibit to indicate how they would be lifted. The inclination of those lines one to another has nothing whatever to do with the question as to how the Jacquards will affect the warp-threads, as they do not indicate, neither is said diagram intended to in-

dicate, the direction of the lifting-cords in the loom when it is fully mounted, but simply shows that the cords from the small Jacquard are to lead down to these several threads of the warp, and to show that by their being straight or as lines that are taut, they are to act at these
284 several points, and that the cords attached to the large Jacquard at that point are to be left slack or out of action, and are here indicated by the curved lines in imitation of the lifting-cord being at rest or as it would appear when at rest.

R. X Q. 92. There being no description of that diagram in the work from which the exhibit was taken, will you state why the cords from the main Jacquard are represented as bent from the inclined to the vertical position, and why the cords from the small Jacquard are not represented as bent?

A. There was no actual necessity of running the lines in a straight direction from the incline, or of inclining the cords from the main Jacquard in order to have illustrated all that was necessary to teach one the proper method of mounting the loom for this kind of figure; because one figure would answer the purpose just as well as the four that are shown here in order to illustrate the nature of the mounting, as may be seen by referring to the second figure, counted from the left, where the first lines in both the main and small Jacquard referred to in the question are shown as straight. Probably one of the best reasons for showing those lines straight, after having been inclined from the main Jacquard, was to save room on the page, and, at the same time, make rather a showy illustration of the publication.

R. X Q. 93. Will you mark, by the letter "C" on the said diagram, one of the slacks of the cords from the main Jacquard to which you have referred?

A. I have done so.

R. X Q. 94. Can you give a rational reason for the remarkable coincidence that the slack of the alternate cords from the main Jac-
285 quard which are connected (in any of the various ways which you have indicated) with the cords from the small Jacquard should be alternately curved in opposite directions?

A. Certainly. The designer merely intended by those curves to indicate that at these points in the design, which he was furnishing to the public, that those cords from the main Jacquard leading to every fifth lifting-cord or its place in the cumber-board should remain at rest for an action to be effected from the small Jacquard, and then another cord immediately next to it and connected with the next warp-thread should also lead from the small Jacquard, and with that thread the next fourth lifting-cord from the main Jacquard should be attached to it and that it should remain at rest at the next pick of the loom after the previous action of the first four; hence, the curved line is shown as sweeping from the right to the left to connect with the warp-thread from the small Jacquard which is behind it as the previous one curves from the left to the right coming into the small Jacquard which is before, considering the bottom of the diagram as the front of the loom, or "before" referred to in this answer.

R. X Q. 95. Does the said exhibit represent the small Jacquard as having lifted its cords?

A. It doesn't show whether it has or not.

R. X Q. 96. If it doesn't show, how can you say that the curved lines "C" represent the slack of the cords of the main Jacquard after the cords from the small Jacquard have been lifted?

A. As already stated by me several times, said exhibit is for the pur-

pose of showing where the action of the small Jacquard shall act,
286 in connection with the larger one, and as to lifting, the diagram is not intended to teach anything about it. As already stated by me several times, the straight or taut lines from the small Jacquard, show that at those points, relatively to the lines or cords leading from the large Jacquard, where they are connected, shall act instead of the large Jacquard, and hence they are shown straight by the designer, to indicate at this point they are to be brought into action, and the others with the curved lines, to be left at rest.

R. X Q. 97. Direct your attention to the first division on the left-hand side of the Exhibit Gilroy, which represents eight cords from the main Jacquard, and two from the small Jacquard; the first cord from the small Jacquard, on the left hand side being represented as connected with the first cord from the main Jacquard, on the left-hand side; the point of connection—if that be intended to be a point of connection—being a little to the right of the fourth cord, and the second cord from the little Jacquard, being connected with the eighth cord of the main Jacquard, the point of connection being between the fourth and fifth cords. Can you state, if the said cords are connected with the warp-threads, how they get so out of position, one being moved to the right and the other to the left?

A. As repeatedly stated by me, said diagram is not intended to represent the harness in the loom, or as it appears in the loom, in action, but to show that the first cord from the main Jacquard, counted from the left, is to co-operate with the cord from the small Jacquard which will come in at the fifth space in the harness, and immediately next to it another cord from the small Jacquard acting in the same space
287 will also come in to act, and it will be connected with the cord leading from the main Jacquard, and shown in the diagram as No. 8; and when these two small Jacquard cords in space No. 5, counted from the left, are in action, the first and eighth cords from the main Jacquard shall be at rest, and so on throughout the entire figure, and in so far as any instruction is given by said Exhibit Gilroy, the arrangement and combination of these first eight cords from the main Jacquard with the two from the small Jacquard is complete. That much information being given to a weaver to mount his loom, the rest of the diagram is unnecessary.

JOHN BOYD ELIOT.

Sworn to before me.

JOSEPH GUTMAN, JR.,
Examiner, &c.

NEW YORK, *Thursday, January* 22, 1874—11 a. m.

Met pursuant to adjournment.
Counsel as before.

Mr. JAMES LYALL, a witness of lawful age, produced on the part of the defendants, having been by me first duly cautioned and sworn to testify the truth, the whole truth, and nothing but the truth, in answer to interrogatories propounded to him by Mr. Witter, of counsel for defendants, deposes and says as follows:

Q. 1. Have you already been examined in this case?

A. I have.

288 Q. 1½. Will you please to state, more fully than you have already done, what experience you have had concerning looms for weaving; and, especially, looms in which the Jacquard mechanism is employed, and how this experience was acquired?

(Objected to for the same reason as given in the re-examination of Mr. Lemuel W. Serrell. This objection to apply to each and every question put to this witness.)

A. I am thoroughly acquainted, and have been for the last twenty-five years, with the Jacquard machine and Jacquard loom. I commenced making Jacquard machines in the year 1848; also tied in the cords in the Jacquard machines, and have made the dies for cutting cards, and have cut cards, and have made a great many Jacquard looms, and have mounted the same with the Jacquard.

Q. 2. Were you present, and did you hear the testimony of J. N. McIntire, taken on the 7th and 8th instant?

A. I was, and did.

Q. 3. Have you read his deposition since that time, and especially his answer to the sixth question, printed on the 86th, 87th, 88th, and 89th pages of complainant's record?

A. I have.

Q. 4. Is he correct or incorrect in what he therein says about the use of two Jacquards in one loom for weaving corsets? If you say he is incorrect, please state wherein, and give your reasons.

289 A. He is incorrect; for two Jacquards can be mounted on one loom to weave a corset with the pockets stopped off in the weaving at different heights. The one Jacquard can be arranged to weave the contour or shape, the other Jacquard to weave the pockets or double portion of the corset. The cords connecting to the one mail that the warp-thread passes through can also be connected to the two Jacquards; the one Jacquard that forms the contour, while in operation, would leave the cords slack on the Jacquard that forms the pocket, while the Jacquard that forms the pocket would leave the cords connecting with the Jacquard that forms the contour slack while in operation. But it is not necessary that those cords should be slack, or that either of the Jacquards should be arrested; the cards can be cut and the cords so arranged so that the two Jacquards operate through the entire corset.

Q. 5. To have the same warp-threads which enter into the double portion or pockets of a corset simultaneously with the *the* single portion above the pocket enter also into the shape or contour of a corset, one Jacquard performing the first of these duties and another Jacquard the second, is it necessary to have the connections between these warp-threads and the two Jacquards intermittently made and broken? If it is not, why not?

A. It is not necessary; for the reason—two cards can be attached to the same mail, and the other ends attached to the two Jacquards. The Jacquard machine is only required to lift the warp-thread, while a weight draws it down. In case of the one Jacquard operating, the cord

290 connected to the other only remains slack, the cards being cut correspondingly on the two Jacquards, so as not to affect the operation of the one Jacquard while it is doing its work.

Q. 6. What do you mean by the term mail?

A. It is a small, oblong piece of steel, with three holes punched in it; the middle hole for the warp-thread to pass through; the upper hole, to tie the cord to connect with the Jacquard machine; the lower hole, to tie the cord that the weight is attached to.

Q. 7. State whether or not you have ever seen represented, anywhere, the manner of operating the same warp-threads by two Jacquards. If you have, state where.

A. I have seen a drawing, illustrated by two cords, being connected with one warp-thread, in Gilroy's work on weaving.

Q. 8. Look at Exhibit Gilroy and state what it is.

A. This represents a tie-up for two Jacquard machines where the two cords leading from the two Jacquards are connected to the one warp-thread, so that either of the two Jacquards could operate the one warp-thread at one time or they both could operate at the same time.

Q. 9. How are they represented in that sketch—both the Jacquards as operating, or only one?

A. It represents the Jacquard on the right in the act of operating the warp-thread, while the one on the left is standing still.

Q. 10. Are all the warp-threads represented as being connected with the two Jacquards in that sketch, or a part of them?

291 A. A part of them; the sketch represents every fourth thread as being connected to the two Jacquards.

Q. 11. Is there any difficulty in so connecting the whole, or any desired portion, of the warp of the fabric?

A. There is no difficulty in connecting the whole or any portion of the warp to two Jacquards.

Q. 12. In the use of two Jacquards in one and the same loom, is there or not any difficulty in having any thread of the warp manipulated at one time by one Jacquard, and at another time by the other Jacquard, or in having any thread of the warp operated at the same time by both Jacquards, or in having any thread of the warp operated a part of the time by one Jacquard, another part by both Jacquards, a third part by the other Jacquard, and a fourth part by neither? And I refer, of course, to the instance where both Jacquards are in one loom.

A. There is no difficulty whatever; for example, two Jacquards can be mounted on the same loom with a thousand warp-threads in that loom, the two cords leading from the two Jacquards to the one warp-thread, and so go on, and so connect the whole thousand wrap-threads to the two Jacquards, so that the two Jacquards are connected, in every case, to the one warp-thread. The cards can be cut for the number one Jacquard to form a dog on the surface of the cloth—the nose of the dog at the one selvedge of the warp, and the body extending across the entire web, the tail reaching to the other side, so that the whole thousand threads enter with the figure of the dog. The cards can be cut for the number two Jacquard so as to raise a fish on the surface of the cloth,

292 the fish extending the whole width of the warp and occupying every one of those thousand threads. The loom then can be set in motion, the number one Jacquard producing a dog, while the number two, that has the fish, will be standing at rest. The number one Jacquard then can be stopped, and the number two Jacquard set going, and produce the fish on the surface of the cloth. Now, it is not necessary, having this loom mounted with the two Jacquards as they are, to have either one of these Jacquards resting. It is only necessary to take the cards out of the two Jacquards, and cut the cards correspondingly, so that both Jacquards would help produce the dog or any portion of the dog, and the same with the fish.

Q. 13. With the uses of Jacquards, which were commonly known among weavers prior to 1854, would or would not directions to stop off the bone-pockets of a corset in the weaving have been a sufficient explanation for doing it by the use of either two Jacquards or one Jacquard?

A. It would be sufficient, for the capacity of the Jacquard is such that two Jacquards would do it as well as one and one as well as two.

Q. 14. If a person acquainted with the uses of Jacquards in weaving had, prior to 1854, been told to stop off the bone-pockets in weaving of

corsets at heights required, and in so doing to use two Jacquards, one to form the contour of the corset, and the other Jacquard to form the pocket and the single part above it, would, or would not, that have been sufficient instruction to such person to weave such corset, using therein two Jacquards?

A. It would have been sufficient instruction.

293 Q. 15. State whether or not, in your opinion, it was necessary for anything to have been added to the specification Exhibit Johnson to have furnished full explanation to a corset-weaver how to weave a corset and stop off all the bone-pockets of a corset at the right places in the weaving?

A. I cannot see anything that could be added to explain it more fully than it has been. It is very concise and correctly explained, to one acquainted with the state of the art.

Q. 16. State whether or not the corset described in complainant's patent, on which this suit is brought, could be made as easily by the use of two Jacquards, as described in the Johnson specification, as by the use of one Jacquard?

A. It could be made just as well by the use of two Jacquards as by one.

Q. 17. And as described in the Johnson specification?

A. Yes.

Q. 18. Please look at the corset which is now put in evidence and marked "Exhibit Johnson Corset No. 2," and state, if you know, where, when, and under whose directions, and how it was made.

A. That corset was made in the United States Corset Company's factory, in West Twenty-third street, the 19th of January, 1874. I obtained a copy of the specifications of John Henry Johnson, heretofore referred to, and set the men to mount a loom with two Jacquards on the same loom, and to tie in the cords connecting the two Jacquards to the proper warp-thread, so that one Jacquard formed the contour or shape
294 of the corset while the other Jacquard wove the pockets or slots and stopped them off at the required length, as instructed in the John Henry Johnson specification. I had the cards cut so that the one Jacquard formed the contour or shape of the corset, the other the double portion or pockets. I then had Mr. J. Boyd Eliot, and Robert Whitehill, and Charles Saatweber, William H. Lord, and Emil Kunzli all present while a girl wove several of these corsets.

Q. 19. Did the Jacquard which governed the weaving of the pockets govern, simultaneously, the weaving of the single part above the pockets?

A. It did govern the weaving of the single part above the pocket as well as the double.

Q. 20. The question was, whether it so governed the single part simultaneously?

A. It did.

Q. 21. Is or is not Exhibit Johnson Corset No. 2 a well-woven, merchantable article?

A. It is a good saleable article.

Q. 22. Are the pockets in that corset stopped off at different heights relatively to each other in the weaving?

A. They are stopped off at different heights relative to one another in the weaving.

Q. 23. State whether or not a corset like that represented by figure three of the drawings of complainant's patent could be conveniently woven by the use of two Jacquards.

A. It could.

295 Q. 24. From an examination of two corsets, each having the pockets stopped off at different heights relatively to each other, in one of which the pockets or double parts and the single parts above them were woven by one Jacquard and the contour or shape affected by the other Jacquard, and the other of which was wholly affected by one Jacquard, could it, in your opinion, be told which was woven by two Jacquards and which by one?

A. It could not be told. They would both be identically alike, thread by thread.

Q. 25. Look at the exhibit that is here put in evidence, and marked "Exhibit Illustration," and state when, where, under whose directions, and how it was woven?

A. It was woven in the United States Corset Company's factory, in West Twenty-third street, on the 20th of January, 1874, on a loom with two Jacquards, the one Jacquard to form the contour or shape of the corset, the other Jacquard to form the pockets or double portions of the corset. I directed the girl to put in white weft or filling, while the Jacquard was operating on the contour or shape of the corset, and black weft or filling while the Jacquard was forming the pocket or double portion of the corset.

Q. 26. How did the cording of those Jacquards or the tie-up correspond with that shown in Exhibit Gilroy?

A. They were exactly alike, so far as the connecting of the two Jacquards are concerned; that is, in the case where the warp-thread is required to be acted on by the two Jacquards, I had the two cords attached to the one mail and attached to the two Jacquards, the same as Gilroy illustrates.

JAMES LYALL.

296 Sworn to this 22d January, 1874.

JOSEPH GUTMAN, JR., *Examiner, &c.*

WILLIAM H. LORD, a witness on the part of the defendants, who has been heretofore duly sworn and examined on the part of the defendants, recalled for further examination, and being further examined by Mr. Witter, of counsel for defendants, deposes and says:

Q. 1. Have you already been examined in this case?

A. Yes; I have.

(The same general objection as to Mr. Serrell's re-examination.)

Q. 2. State more fully than you have already done what experience you have had in weaving and in weaving-machinery?

A. I was born in 1840, and at the age of nine years I was put to work helping to make Jacquards and mounting them. After I had been there about one year, I was taken by my father to help him start Jacquard looms, and, in helping him, I had to learn designing, card-fitting, and the general principles belonging to a Jacquard loom. I helped my father to start about sixty Jacquard looms for a firm named Rycrofts & Brooks. After that I was put into the designing room, in order to get a thorough knowledge of the art of weaving. At the age of fifteen I was given charge of forty looms, about half of which were Jacquard looms. I worked at several different places in my native town—

297 about all of them had Jacquards, more or less—until I was twenty-one years old, when I left England to come to America. The first place I was employed at was at the Pacific Mills, Lawrence, Massachusetts, and I there worked on Jacquard looms. During the last

twelve years I have been employed by several firms in the country as weaving overseer, and have had charge of Jacquard looms in Webster, Mass., and at Mr. Clendenning's, Frankfort, Philadelphia. I have also had charge of other weave-shops where there were no Jacquards, but where we used a great combination of patterns to form twills and figures in cotton and woolen cloths. I have had charge of the most difficult looms in the country, among which is Thomas' fancy woolen loom, Crompton's woolen loom, Jenks' woolen loom, and several others whose names I do not remember. During my experience I have started many new looms, and many patented looms, both in America, Canada, England, Ireland, Scotland, France, Belgium, Austria, Saxony, and Prussia. I am also the inventer of a witch, which takes the place, to a great extent, of Jacquards. I have built and sold a great many of them. Some are working in England, Ireland, Scotland, and other countries I have named.

Q. 3. If you have read the deposition of J. N. McIntire, taken on the 7th and 8th instants, state whether, in your opinion, he is correct or incorrect, in what he therein says in answer to the sixth question regarding the use of two Jacquards in one loom for weaving corsets? and if you say he is incorrect, state wherein, and give your reasons.

A. He is incorrect wherein he says "from which it follows as
298 a necessity that these warp-threads must be continually manipulated during the insertion of the filling and production of the corset material, in order to do which, at the same time have them controlled during one part of the time by one Jacquard and at another by another Jacquard, it would be necessary to have the connections between these warp-threads and the two Jacquards alluded to in this provisional specification, intermittently made and broken; that is to say, it would be necessary for those warp-threads to be connected with one Jacquard during the time a pocket was being woven, and then to have this connection cease and the same threads connected to the other Jacquard for the purpose of forming the single portion." There is no occasion to change the connections from one Jacquard to another. It is a very easy matter to connect two Jacquards to each and every thread that forms a corset. You have only to cut your cards from your design to suit the two Jacquards. After two Jacquards are mounted, as above stated, it would be a very easy thing to have one form the contour or shape and the other to form the pockets or double portions simultaneously with the single portions at the top.

Q. 4. Look at Exhibit Gilroy, and state what that represents.

A. It represents two Jacquards; both Jacquards are attached to every fourth warp-thread.

Q. 5. Would it be necessary, to operate a loom containing two Jacquards connected with the warp-threads as represented in that exhibit, that the connections between the warp-threads and the Jacquards should be intermittently made and broken?

299 A. It is not necessary, as they are always connected till the Jacquard or Jacquards are dismounted.

Q. 6. Have you seen lately two Jacquards in one loom weaving corsets? If yea, state how the Jacquards were corded.

A. I have; at the United States Manufacturing Company's place, West Twenty-third street. Both Jacquards were connected to every warp-thread in the warp; the connection was made from both Jacquards below the cumber-board to the loop that holds the mail.

Q. 7. Look at corset Exhibit Johnson No. 2, and the Exhibit Illustra-

tion, and state how they were woven, if you know, and where, and according to what directions.

A. They were both woven in my presence in the United States Corset Company's factory. One Jacquard formed the contour or shape and the other Jacquard formed the pockets or double portion simultaneously with single portions of the top. Two Jacquards were connected by me under the instructions I obtained from Johnson's specification. I found no difficulty whatever in producing these corsets, and did weave them just as quick with the two Jacquards as I could with one.

Q. 8. Could any one, in your opinion, tell whether any given corset, or part thereof, was woven by two Jacquards or by one?

A. No one can tell, as the corsets can be made by two Jacquards exactly the same as by one.

300 Q. 9. If a person acquainted with the uses of Jacquards in weaving had, prior to 1854, been told to stop off the bone-pockets in weaving of corsets at the desired heights, and in so doing to use two Jacquards, one to form the contour of the corset and the other to form the pocket and the single part above it, would or would not that have been sufficient instruction to such person to weave such corset, using therein two Jacquards?

A. I have no doubt that had such a request been made to any Jacquard weaver that I was acquainted with before 1854 it would have been quite sufficient for them to do so.

Q. 10. State whether or not, in your opinion, it was necessary for anything to have been added to the specification Exhibit Johnson to have furnished full explanation to a corset-weaver how to weave a corset and stop off the bone-pockets in the weaving at the proper places?

A. I think the information given in that specification is amply sufficient for any practical Jacquard weaver.

Q. 11. Is or is not Exhibit Johnson No. 2 a well-woven, merchantable article?

(Objected to, as it does not appear that the witness is a manufacturer or a vender of corsets.

Question withdrawn for the present.)

Q. 12. State what opportunities you have had for becoming acquainted with corset-weaving and with the qualities of corsets as respects their weaving and merchantability?

A. In the first place I have had many years' experience in fancy cotton-weaving, and I regard this corset as simply a fancy cotton-

301 woven corset. I understand cotton yarns, both warp and filling, and consider myself capable of telling a good piece of cloth. I have bought corsets at wholesale and sold them at retail in Manchester, England. I have worked ten months in making corsets in the vicinity of Manchester, and designing for the same many different designs, and I have seen them made both by hand and power, and I have made many drawings of the machinery that produces them.

Q. 13. Is or is not Exhibit Johnson Corset No. 2 a well-woven, merchantable article?

(Objected to as leading.

Question again withdrawn.)

Q. 14. Please to look at corset Exhibit Johnson Corset No. 2, and state what sort of a corset, in your opinion, it is as regards the quality of its weaving and as regards its merchantability.

A. I have looked at the exhibit. The only fault that I find, which is very common among woven corsets, is that a few threads have run down. I do not think that will injure the sale of the article at all. With that exception, I consider it a good, tasty, well-woven corset.

Q. 15. State whether or not a corset like that represented in figure three of complainant's patent could be conveniently woven by the use of two Jacquards.

A. It could.

And, being cross-examined by Mr. Keller, the witness deposes and says:

X Q. 1. What business are you at present engaged in?

302 A. I am a loom-builder.

X Q. 2. For yourself, or in the employ of some one else; and, if so, where?

A. In the employ of Messrs. J. & W. Lyall, or the Positive Motion Loom Company.

X Q. 3. In what capacity are you so employed?

A. As foreman in the shop; to superintend the building of the looms.

X Q. 4. Were you present during all the operations which were performed upon the Exhibit Johnson Corset No. 2, from the time it left the loom until it was in its present condition?

A. I was present, and wove and controlled the loom, or rather wove the corset myself, and, foreseeing such a question, I wove into the centre of that corset a thick linen cord, making two picks, and after I had finished weaving the corset, I took it to the laundry-man and requested him to give me that corset after it was finished, with the exception of the steels being put in. I got the corset and cut it in two, and doing so, the cord came out, and I had the steels put in and finished, and can swear that that is the corset. Another reason that I can swear to is that on this corset there are three different lengths of pockets. On the same quality of corsets, made by the other looms, there are only two different lengths of pockets.

X Q. 5. The cord that you wove in is not in it now, is it?

A. No.

X Q. 6. It was unbleached when it was woven, was it not?

303 A. Yes.

X Q. 7. How long have you been in the employ of J. & W. Lyall, or the Positive Motion Loom Company?

A. I was in the employ of the Positive Motion Loom Company about eight months prior to September, 1869, and since the fourth of August last.

X Q. 8. Do not the defects in Exhibit Johnson Corset No. 2, referred to in your examination-in-chief, indicate that there was some defect in working the warps during the weaving operations?

A. No, I don't think it does. The Jacquard machine was all correct, but the beams that contain the warps might possibly not have had all the threads on. It is a very common thing to see woven corsets with threads out, for they are not regarded as of so much consequence as an outer garment with threads out, and those few threads being out says nothing against the perfect operation of the loom.

WILLIAM H. LORD.

Subscribed and sworn to this 22d January, 1874.

JOSEPH GUTMAN, JR.,
Examiner, &c.

Examination further adjourned to January 23d, 1874, at same place, at 11 a. m.

JOSEPH GUTMAN, JR.,
Examiner, &c.

NEW YORK, *Friday, January* 23, 1874—11 a. m.

Met pursuant to adjournment.

304 Counsel as before.

EMIL KUNZLI, being recalled for further examination on the part of the defendants, says:

(Same objection as to the re-examination of L. W. Serrel.)

Q. 1. Did you ever use, or see used, two Jacquards in one loom? If yea, state when and where.

A. I have seen using—and used, myself—two Jacquards in one loom, in the year 1870, when in my father's employ.

Q. 2. Will you please state how they were rigged, and what sort of goods were woven thereon?

A. They were rigged so as that both of them manipulated the same warp-threads. We wove, or I wove, rather, silk etiquettes or labels, for tailors.

Q. 3. State whether, or not, these two Jacquards were operated together.

(Objected to as leading.)

A. They were operated together at certain times; and according to the pattern, they were operated only one of them at a time.

Q. 4. What did you do when you wanted to operate one and not operate the other?

A. I pushed the step of the one, and left the step of the other idle.

Q. 5. When you wanted to work them both together what did you do?

A. I pushed both steps.

305 Q. 6. Was any particular part of the work on the etiquettes done by one of the Jacquards, and another particular part done by the other Jacquard; how as to that?

A. There was.

Q. 7. State what part was done by one of the Jacquards and what by the other.

A. I must have a ticket to explain it. I cannot do it otherwise. I have one here. The part or edge where they are sewed on the coats I wove exclusively with one Jacquard. I mean the part outside of the gold-colored borders; and the fancy part I wove, one pick with the two Jacquards, and the other pick with only one Jacquard.

Q. 8. When you changed from using one of the Jacquards to use the other, was anything necessary except to stop treading one treadle and to commence treading the other?

A. No.

Q. 9. How long have you been acquainted with the art of Jacquard weaving?

A. Four or five years.

Q. 10. What sorts of goods have you had opportunities to become acquainted with the weaving of?

A. Silk goods partly, and partly cotton goods.

Q. 11. Name the different sorts of articles.

A. Silk and cotton etiquettes.

Q. 12. What is your business now?

A. Designer and card-cutter.

306 Q. 13. Of what articles?

A. Of corsets.

Q. 14. State whether that occupation, together with your experience in Jacquard weaving, enables you to distinguish a well woven from a poorly woven piece of corset material.

A. It would.

Q. 15. Please look at Exhibit Johnson Corset No. 2, and state how you think that is woven; I mean as to the quality of weaving.

A. It is woven perfect.

Q. 16. Did you or not see that corset woven?

A. I did see it woven.

Q. 17. How was it woven?

A. It was woven on a loom with two Jacquards.

Q. 18. State, if you know, how the two Jacquards were corded.

A. They were corded so as that they would manipulate the same warp-threads.

Q. 19. Did both Jacquards operate together; how as to that?

A. No; one of them weaving the slots or pockets simultaneously with the single parts above it, and the other the contour or shape of the corset.

(Counsel for defendants puts in evidence the etiquette referred to by the witness, and it is marked "Defendants' Exhibit Etiquette.")

And being cross-examined by Mr. Keller, the witness says:

307 X Q. 20. In whose employ are you as designer and card-cutter of corsets?

A. I am in the employ of the United States Corset Company, in Twenty-third street.

X Q. 21. Who contrived or invented the arrangement of Jacquards in loom on which you wove the goods of which defendant's Exhibit Etiquette is a sample?

A. My father.

X Q. 22. Look at the parts in Exhibit Johnson Corset No. 2, marked in ink with crosses, (x,) and state whether those parts are not defectively woven, and indicate that the defects were due to the defective working of the warp-threads.

A. The weaving of the corset is all perfect. There may have been a few warp-threads lost or broken, but this does not injure the weaving. It is a very hard thing to find a perfect piece of cloth, no matter what its nature or material may be, without signs that indicate some break in the warp from time to time.

X Q. 23. Do you know who made the design for the corset, Exhibit Johnson No. 2?

A. I do.

X Q. 24. Give his name.

A. Mr. Saatweber, foreman in the United States Corset Company.

X Q. 25. Do you know, and, if so, give his name, who mounted the loom in connection with two Jacquards, and who cut the cards therefor, for the weaving of corset Exhibit Johnson No. 2?

308 A. The mounting of the loom was done by Mr. Saatweber, and I have been cutting the cards.

X Q. 26. How many widths of cloth were woven in that loom at the same time, side by side, if more than one?

A. There was only one width of cloth woven in that loom.

X Q. 27. In the other looms in that establishment, how many widths of cloth are woven at a time in each loom?

Q. Four on every loom.

X Q. 28. Is there more than one Jacquard for each of those looms, with the exception of the one on which Exhibit Johnson No. 2 was woven? I mean one Jacquard for the four strips of cloth.

A. There is not more than one.

X Q. 29. How many corsets were woven on the loom with two Jacquards, on which Exhibit Johnson No. 2 was woven?

A. There was, as I know, only two woven in my presence.

X Q. 30. Do you know who wove those two?

A. Yes; I do know. They were woven by Mr. Saatweber and Mr. Lord, with the aid of a girl.

EMIL KUNZLI.

Subscribed and sworn to this 23d January, 1874.

JOSEPH GUTMAN, JR.,
Examiner, &c.

309 JAMES LEGGETT, a witness of lawful age, called on the part of the defendants, and who, being by me first duly cautioned and sworn to testify the truth, the whole truth, and nothing but the truth, in the matter of controversy herein, and being examined by Mr. Witter, of counsel for the defence, deposes and says:

Q. 1. What is you name, age, residence and occupation?

(Same objection as to L. W. Serrell's re-examination.)

A. My name is James Leggett; age, fifty-five years; residence, New York City; and occupation, a weaver by trade.

Q. 2. How long have you been a weaver?

A. Forty years.

Q. 3. Where did you learn your trade? And give a circumstantial account of your connection with that art.

A. I learned my trade in the west of Scotland, under my father, who was a practical Jacquard loom weaver. I was employed under him in doing the work that the Jacquard does now, before Jacquards came to be in general use. I assisted him in fixing up the first Jacquard loom in 1835. I have woven with Jacquard looms since 1838 on my own account, and fully understand fixing and working the Jacquard loom.

Q. 4. Did you ever see two Jacquards employed in one loom? If yea, when first and where?

A. I have seen and worked with two Jacquards in one loom; the first time, I think, about the year 1846, in Scotland.

310 Q. 5. Whereabouts in Scotland?

A. In my native place—Strathavon.

(The testimony as to the use of two Jacquards in one loom is objected to. It is admitted on the part of the plaintiff that the use of two Jacquards in one loom has long since been known and practiced.)

Q. 6. When did you leave Strathavon?

A. I left it in the year 1853.

Q. 7. State how these two Jacquards in one loom were rigged, which you so saw and worked with, in Strathavon.

A. They were rigged on the top of the loom, each throwing the cards to opposite sides of the loom.

Q. 8. How were these looms corded?

A. They were corded, in some instances, to manipulate the one thread by both Jacquards; in others, each one to manipulate a certain part of the threads only, as required to produce the pattern wanted.

Q. 9. Will you please state what the custom of the inhabitants of that part of Scotland was, at that time, as respects their all working in one factory or otherwise?

(Objected to as immaterial.)

A. In the small towns around Glasgow each family had its own workshop and own looms, and had the work supplied from the manufacturers in the city, consequently we had to do all our own loom fixing, which is not the case in large factories.

311 Q. 10. How many looms, employing two Jacquards each, and so corded that each Jacquard operated the same warp-threads, did you, or you and your father, have in operation at Strathavon during these years?

A. Four.

Q. 11. Did you know of any other such looms in that part of Scotland or elsewhere?

A. Yes; I did know of a good number more. The thing was so common that it was no matter of curiosity.

Q. 12. State how the two Jacquards were operated in the looms referred to in the tenth question.

A. They were operated with the foot; our looms were all hand-looms.

Q. 13. Were these two Jacquards operated together, or separately? How as to that?

A. They were fixed—for some class of goods—to operate singly when required, or both at once, as required to complete the work or pattern.

Q. 14. When you wanted to operate one Jacquard and not operate the other, what did you do?

A. I moved my foot back a few inches when I wanted to operate one Jacquard, and put it forward to catch the attachment to the second Jacquard—to work them both together; or by lifting my foot I could use the one and then the other.

Q. 15. State whether you have known of two Jacquards being employed in one loom in any other way than you have already described? If yea, say how.

A. I have not, as far as practical working myself. But I have seen them employed in something different from that class of goods on
312 which I was employed. In the year 1851 I saw a loom with two Jacquards manipulating the threads the whole breadth of the work on a new principle, which I cannot fully describe, as I had a very limited opportunity to examine it. The goods were making for the London exhibition, and were kept partly secret.

And being cross-examined, the witness says:

X Q. 16. What kinds of goods did you manufacture in the looms you say used two Jacquards?

A. They were all fancy goods, such as robes, scarfs, dresses, handkerchiefs, etc.

X Q. 17. Were they not goods generally having borders?

A. No. The handkerchiefs generally had borders.

X Q. 18. How many needles did each Jacquard have?

A. Some of the Jacquards had four hundred needles, some of them six hundred.

X Q. 19. You mean four or six hundred needles to each Jacquard, or with two Jacquards to each loom.

A. Each Jacquard had either four or six hundred needles.

X Q. 20. Where are you employed now, and in what business and capacity.

A. I am not at present in any employ. The last place I was employed in was, I think, the name is Luke Thompson's—Thompson's anyway—silk factory, in Twenty-third street, near Avenue A. I worked there for eighteen months as an employee. That was the last place I did work in.

JAMES LEGGETT.

313 Subscribed and sworn to this 23d January, 1874.

JOSEPH GUTMAN, JR.,
Examiner, &c.

ROBERT WHITEHILL, being recalled on the part of the defendants, and further examined by Mr. Witter, says:

Q. 1. Have you already been examined in this suit?

(Same objection as to the testimony of L. W. Serrell's re-examination.)

A. I have.

Q. 2. Will you please state a little more fully than you have already done what have been your opportunities for becoming acquainted with weaving and weaving machinery, including the Jacquards.

A. I have been more or less connected with the production of textile fabrics and the machinery for producing the same since the year 1848. For the last five or six years I have been a builder and constructor of weaving-machinery; for the last two years I have made the Jacquard machine and what it can produce a study.

Q. 3. If you have read the deposition of J. N. McIntire, taken on the 7th and 8th instants, on the part of the complainant, state whether, in your opinion, he is correct or incorrect in what he therein says in answer to the sixth question, regarding the use of two Jacquards in one loom for weaving corsets? And, if you say he incorrect, state wherein, and give your reasons.

314 A. I have read the deposition of McIntire very carefully, and would say that he is incorrect in whereas he says "From which it follows, as a necessity, that these warp-threads must be continually manipulated during the insertion of the filling and production of the corset material, in order to do which, and at the same time have them controlled during one part of the time by one Jacquard and at another by another Jacquard, it would be necessary to have the connections between these warp-threads and the two Jacquards alluded to in this provisional specification, intermittently made and broken—that is to say, it would be necessary for these warp-threads to be connected with one Jacquard during the time a pocket was being woven, and then to have this connection cease and the same threads connected to the other Jacquard for the purpose of forming the single portion, and so on successively during the successive formations of the single and double portions of the material, which conditions and mode of operation were wholly unknown in the state of the art, and seem to me to be practically impossible in weaving material." Mr. McIntire is erroneous in his conclusions, and I must say that, in my judgment, he knows but little, if any, about the subject-matter of what he deposes.

Q. 4. Look at Exhibit Gilroy and state what that represents.

A. It represents a tie-up for two Jacquards.

Q. 5. How are the Jacquards represented as corded in that exhibit?

315 A. The cords from the right-hand Jacquard come down and are attached to the cords to the left-hand Jacquard. The cords on the right-hand Jacquard are shown in the act of lifting, thereby making the cords of the right-hand Jacquard form the curve.

Q. 6. How does that exhibit represent those Jacquards as corded, so far as relates to the warps?

A. The cords that run from the right-hand Jacquard, and attached to the cord of the left-hand Jacquard, are connected to and manipulate the same warp-thread. To explain it a little plainer: The cords running from these two Jacquards are connected to what is called the mail, the warp-threads passing through these mails, and the cord that comes from the right-hand Jacquard, as well as the cord that comes from the left-hand Jacquard, is tied to the same mail, and the warp, as I said before, passing through the mail, it can be manipulated by either of these cords of these Jacquards at different times, or could be lifted both together.

Q. 7. You did not give any reasons why you thought Mr. McIntire was erroneous regarding the matter spoken of in my third question. Will you please do so here, if you have any?

(Objected to, the same question having been put to the witness, in substance, and already answered.)

A. The reason why I think he is erroneous in making such statements, is because it is so well known by every one who is acquainted at all with Jacquard weaving that the same warp-threads can be manipulated by different Jacquards, one of which could be used for weaving the shape or contour of a corset, the other to weave the pockets simultaneously with the plain part at the top of the pockets—with the other Jac-
316 quard. In fact, in my mind, there seems to be nothing impossible in the art of weaving but what the Jacquard can produce. I might say, further, to that question, that any pattern that would require the manipulation of all the warp-threads could be made by one Jacquard. I might take another pattern, differing from the first, which would take all the warp-threads and be manipulated by a second Jacquard; so that one Jacquard would only be used in the production of the first pattern while the second Jacquard stood still, and the second Jacquard be used in producing the second pattern while the first Jacquard that produced the first pattern stood still; or I could use them jointly, to form any part of either of these patterns.

Q. 8. Having a loom fitted up with the cording, as represented in Exhibit Gilroy, is it necessary that the connections between the warp-threads and Jacquards should be intermittently made and broken?

A. Why, certainly not.

Q. 9. Have you seen, lately, two Jacquards in one loom, weaving corsets? If yea, state how the Jacquards were corded.

A. I have seen a loom weaving with two Jacquards, the cords from Jacquard number one passing down to the mails, having all the warp-threads passing through the mails, that Jacquard number one, the cords of which manipulate the whole of the warp-threads to form the shape or contour of a corset; Jacquard number two being mounted immediately in front of Jacquard number one, the cords of which pass down through the cumber-board, and were attached to the same mails that the cords of Jacquard number one was; Jacquard number two forming the
317 pockets, or slots, for the reception of the whalebones, simultaneously with the plain parts at the top of the pocket; Jacquard number one having the proper design or cards placed into it, to form the shape or contour of the corset; Jacquard number two having the design or cards placed into it to form the pockets or slots, simultaneously with the plain parts at the top of the pocket. So mounted, you can proceed to weave a corset by two Jacquard machines.

Q. 10. Look at corset Exhibit Johnson Corset No. 2and the Exhibit Illustration, and state where and according to what directions they were woven, if you know.

A. Exhibit Johnson and Exhibit Illustration were both made from instructions contained in Johnson's specification, already referred to. They were made in the United States Corset Company's factory, No. 517 West Twenty-third street.

Q. 11. Could any one, in your opinion, tell whether any given corset, or part thereof, was woven by two Jacquards or one?

A. No. It stands to reason that, being able to manipulate all of the warp-threads by two Jacquards as well as one, that you could produce the same corset, thread for thread.

Q. 12. Were you present when Johnson Corset No. 2 was woven?

A. I was.

Q. 13. At what rate was this corset woven, as compared with the rate of speed of the other looms in the factory of the United States Corset Company, if you know?

318 A. The lowest speed that they are running looms at the United States Corset Company is at the rate of one hundred picks per minute. The highest rate of speed is one hundred and fourteen. This particular loom that had the two Jacquards mounted over it I timed at three different times, while these exhibits were being manufactured, and the loom was running one hundred and four.

Q. 14. Were you present and did you hear the testimony of Emil Kunzli?

A. I was present and heard the testimony of said Kunzli.

Q. 15. Why was only one of the strips of corset material woven by the two Jacquards in this loom, instead of four, as was usual in the other looms in this factory?

A. The two Jacquards were only strung to the one piece to facilitate matters, as it would have been just as easy to have passed the cords to the other three pieces as it was to this one, but, of course, it is well enough known it would have taken more time to have done so, and we could have produced the four, if we had taken the time, just as easily, and run the loom at just as high a speed making the four that we could weaving the one.

Q. 16. If a person acquainted with the use of the Jacquards in weaving had, prior to 1854, been told to stop off the bone-pockets in weaving of corsets at the desired heights, and in so doing to use two Jacquards, one to form the contour of the corset and the other to form the pockets and this single part above, would or would not that have been sufficient instruction to such person to weave such corset, using therein two Jacquards?

319 A. It would, most assuredly.

Q. 17. State whether or not you consider yourself a good judge of woven fabrics, and give your reasons for thinking so.

A. I think that I am competent to judge whether a piece of cloth is woven perfect or otherwise, for the reason that I have designed looms of different descriptions for weaving different kinds of fabrics. I have invented mechanisms for manipulating the warps, as well as made improvements on the present Jacquard machine, so as to obtain a greater rate of speed; and, I think, from this experience, that I ought to be able to tell whether a piece of cloth is perfect or not.

Q. 18. Look at Johnson Corset No. 2, and state what you think of it?

A. I have examined Exhibit Johnson Corset No. 2, which has a few imperfections in it, but it is self-evident from these imperfections that there has been nothing but the carelessness of the operator, not from any imperfections in the mechanism used. It is very often the case, in the production of corsets, even as well as in other fabrics, that the weaver may leave threads out which ought to be kept in; and to prevent this very one thing there are regulations made in all mills fining the operators for making these imperfections.

Q. 19. State whether or not you regard that corset as a well-woven corset.

A. I do.

And being cross-examined by counsel for complainant, says:

320 X Q. 20. Enumerate the various inventions you have made, and

state where they are in use, and where recorded, and the nature of such inventions.

A. I have made twill movements of different descriptions. I have also made mechanism for making bags, both with the bottom wove and the top of the bag raw, as well as bags with the bottom and top hemmed, all in the loom, so that when the bag is taken from the loom it is ready for use. All of these various inventions are used in the States. The improvements that I have made on the Jacquard mechanism is solely used by the United States Corset Company.

X Q. 21. What is the nature of the improvement you made in Jacquard looms?

A. That, I believe, I am not at liberty to tell, as the complainant in this suit is sitting in the room, and, being a manufacturer of corsets, and in competition against the United States Corset Company, it would not be doing the latter justice for me to made that public.

X Q. 22. Was that improvement on the Jacquard which was on exhibition at the fair of the American Institute last fall?

A. It was not.

X Q. 23. Were you the first to produce a loom for weaving bags closed at the lower end or bottom, weaving at the same time two cloths united at the selvedges, to form the bag, and as a single cloth to form the closed bottom?

A. No; I was not the first that did it. It has been attempted before and been done to a certain extent; where I made the greatest im-
321 provement was in a loom for forming the top of the bag. It is a well-known fact that bags are woven by the thousands every day, but they have a raw edge; these looms that I made, twelve of them, formed the bag entire, so that there had to be no sewing done to the bag to complete them.

X Q. 24. What do you mean by a raw edge in your last answer? Do you mean the sides of the bag or at one end?

A. I mean the mouth of the bag, or the top of the bag.

X Q. 25. Was that improvement patented by you; and, if so, when?

A. It is not patented by me.

X Q. 26. Have you patented, or do you intend to patent, the improvement in Jacquards which you say are in use at defendants' works?

A. The improvement belongs to the defendants; and, consequently, I shall not patent it.

X Q. 27. Prior to your making the improvement in looms for twills, were not twilled fabrics woven with a Jacquard machine, and without the Jacquard by what is called the cylinder loom, and also what is called the witch, and without either of these, but by heddles worked by treadles?

A. Yes; there has been twills woven by the Jacquard machine; by witches, and heddles worked by cams, I suppose, before I was born, and I don't claim to have invented either of these, but only said that I had made improvements of various kinds in the manipulation of warp-threads.

322 X Q. 28. In the loom in which Exhibit Johnson Corset No. 2, you say, was woven, did the cords from both Jacquards pass through the same or different cumber-boards, or how otherwise?

A. The cords from both Jacquards passed through the same cumber-board down to the mail. In order to do this, the Jacquard that was placed immediately in front of the Jacquard, of which I testified to in my direct evidence, the cords first passing a grating, so to speak, so as to keep the cords of that Jacquard clear of the cords of the other Jacquard

until they both passed through the cumber-board, making the cords of the card just mentioned come down in a straight line from the needles and pass through this grating, then striking off diagonally to the cumber-board, from the cumber-board, in a straight line to the mail.

X Q. 29. Will you mark on Exhibit Gilroy what you would there designate as the cumber-board, if any cumber be represented in that exhibit?

A. It looks here as if there was a cumber-board represented, or what might be taken for one. If it is one, it is shown in the perspective. If there is any cumber-board here at all it might be taken for two, one large and one small; but the lines running both ways are sharp. I have marked on Exhibit Gilroy what seems to indicate guides for harness cords.

X Q. 30. Are you connected with or in the employ of the United States Corset Company?

A. I am not.

X Q. 31. Are you connected with or employed by the Positive-Motion Loom Company?

A. I am.

323 X Q. 32. Are not the stockholders of the United States Corset Company, or some of them, also stockholders in the Positive-Motion Loom Company?

A. I believe they are, although I have no positive information on that point.

X Q. 33. Will you state in what part of the establishment the loom is located on which the corset Exhibit Johnson No. 2 was woven, and give the name of the girl who wove, or assisted in weaving, that corset?

A. The location is about the centre of the east end, on the ground floor; the girl that operated, or helped to operate the loom, the name of, I do not know.

And being re-examined, the witness says:

R. X Q. 34. Have you not made other inventions than those you have mentioned? And, if so, state what they are.

A. Yes; I have invented a sewing-machine, and a motor for running sewing-machines by steam-power, and crank movements for looms.

ROBERT WHITEHILL.

Subscribed and sworn to this 23d January, 1874.

JOSEPH GUTMAN, JR.,
Examiner, &c.

Adjourned until Saturday, January 24th, 1874, at 11 o'clock a. m.

JOSEPH GUTMAN, JR.,
Examiner, &c.

324 NEW YORK, *Saturday, January* 24, 1874—11 a. m.

Met pursuant to adjournment.

Counsel as before.

JAMES LYALL, being recalled for the defendants, says:

(Same objection as to the re-examination of Mr. L. W. Serrell.)

Q. 1. Do you know John Baer, who has testified in this suit in behalf of the complainant?

A. I do.

Q. 2. Have you ever had any conversation with him on the subject

matter of this litigation? If yea, state when such conversation occurred, and the substance of it.

A. In the month of November, or thereabouts, Mr. Saatweber and myself visited or went up to his store, in the Ninth avenue, near Fortieth street, when I was introduced to him by Mr. Saatweber. I asked him if he had heard of Mr. Cohn suing the United States Corset Company on a patent for stopping off pockets in the weaving. He said he had heard of it. I then produced a copy of Mr. Cohn's patent and showed it to him, which he took and examined. He then said that Mr. Cohn was not entitled to that patent, for he had woven them with stops in the same manner as in the patent, in the Convex Weaving Company's factory in Morrisania some four or five years ago, and that he had put in those stops in the pockets in the corsets in Mr. Cohn's factory before Mr. Cohn knew that it was done. I then went to Mr.
325 Baer's some time later, it might be that a month had elapsed, with Mr. Gregersen. I there found Mr. Cohn's engineer. We had a general conversation on the English patent, but nothing more at that time.

Q. 3. Look at Exhibit Johnson Corset No. 2, and state what sort of a corset you regard it, in point of shape, and how it compares in that and other particulars with the average of corsets turned out by the United States Corset Company.

A. This corset has a fine, graceful shape, and it is well made, and is a fair average of the production of the United States Corset Company.

Q. 4. Are you the same Mr. Lyall who has already been examined in this suit?

A. I am.

JAMES LYALL.

Sworn and subscribed to this 24th January, 1874.

JOSEPH GUTMAN, JR.,
Examiner, &c.

Mr. GEORGE J. GREGERSEN, being recalled, says:

(Same objection as to the re-examination of Mr. L. W. Serrell.)

Q. 1. Have you already been examined in this suit?

A. Yes, sir.

Q. 2. Do you know John Baer, who has been examined in this suit?

A. I do.

326 Q. 3. Did you ever have any conversation with him about it?

A. Yes; I have.

Q. 4. State the substance of those conversations.

A. I was up to Mr. Baer's house about the last of October or first of November, and I asked Mr. Baer what he knowed Mr. Cohn had a lawsuit with Mr. Lyall about them stops in the corsets. Mr. Cohn he had a patent on that, and would stop our company to put them stops in the bone-pockets. He say, "I know; I heard so;" and then he said "Mr. Cohn he had no right to that patent, because we made them stops in Morrisania;" and then I asked him what he knowed what time the stops was put in Cohn's factory. He said, "Yes; the first we started all the looms without stops, and in the May month we put stops in all the looms. We stopped the bone-pockets." Then I said to him that I came there in August, and we had both kinds of corsets at that time, but the corsets was stopped where the pockets was put by weaving, and some was tacked by sewing; and he said that was the first corsets we

made. They was not finished before. That was all at this time. The next time I went up it was fourteen days later, and I told him I was talking with Mr. Muller between times, and he said just the same—that the corsets was stopped off in Morrisania, by weaving, at different times; and then Mr. Baer he said to me that the corset wasn't stopped off in Morrisania; he turned right around what he had said before; he said it wasn't so. Then I left him, and a few days afterward I was up with Mr. Lyall in his house. We had only a conversation over the
327 English patent the last time I was in his house with Mr. Saatweber. We asked him what he was going to do in this case. He said, "Nothing. I wouldn't go for nobody. I am tired of hearing of the corset business;" and so long that I don't remember what I was going to say. I think that is about all I can say.

Q. 5. Look at corset marked "Exhibit Corset Johnson No. 2," and state what kind of a corset it is, in your opinion.

A. That corset is as good as any other corset in the market. It is perfect shape, and is woven just as good as any other corset in the market.

Q. 6. Did you have anything to do with that corset? If so, state what.

A. I helped finish that corset.

Q. 7. What do you mean by finish?

A. Bleached it, put it on a bust, and finished it off.

And being cross-examined by Mr. Keller, says:

X Q. 8. What was your object in making the several visits to Mr. Baer, to which you have testified in chief?

A. My object was to find out what he would say about it.

X Q. 9. What interest was that to you what he would say?

A. I think that is my business—not other people's business—whether that is my interest or not my interest.

X Q. 10. Do you refuse to answer the last question?

A. I have answered what I can answer. I don't think I am to tell what I talk with other men.

328 And being re-examined by Mr. Witter, says:

R. X Q. 11. Had you any other interest in this matter, except to ascertain the truth?

(Objected to as leading, and as not calling for anything not called out by the cross-examination.)

A. No; the whole thing is nothing to me. I only tell the truth.

GEORG JENS GREGERSEN.

Sworn to this 24th January, 1874.

JOSEPH GUTMAN, JR.,
Examiner, &c.

CHARLES ROBERT SAATWEBER, being recalled for the defendants, says:

(Same objection as to the re-examination of L. W. Serrell.)

Q. 1. Have you already been examined in this suit?

A. Yes, sir.

Q. 2. Do you know John Baer, and did you hear his testimony in this suit?

A. I know John Baer, but I did not hear his testimony in this suit.

Q. 3. Were you not present at Mr. Keller's office when Mr. Baer was examined?

(Objected to by Mr. Keller, as he has already testified that he did not hear his testimony.)

329 A. No, sir.

Q. 4. Did you ever have any conversation with Mr. Baer about this suit? If so, state about when, and the substance thereof, and who was present.

A. Yes, sir, I have. I think it was somewhere in May or June, I can't tell exactly, when Mr. Lyall told me to see Mr. Baer, to find out anything about them stops by weaving corsets in the bone-pockets. I went up to Thirty-seventh or Thirty-eighth street, I can't tell exactly the place, where he used to live. I had a conversation with Mr. Baer about this point. Mr. Baer told me that they had wove them stops in Morrisania, in the Convex Weaving Company already, before Mr. Cohn did know anything about it. Nobody else was present except Mr. Baer and myself at this time. The second time I seen Mr. Baer in company with Mr. Lyall in Ninth avenue, near Fortieth street. We had about the same conversation. Mr. Baer said about the same thing over again what he said the first time when I spoke to him the first time about this stopping off the pockets in a corset by weaving. Another time I seen Mr. Baer in company with Mr. Gregersen in Thirty-ninth street, near Ninth avenue. We talked about the same thing over again, but Mr. Baer said that he wouldn't have anything to do with it, that he couldn't or wouldn't—I don't know exactly which expression he used—be a witness for Mr. Cohn, and that he wouldn't go, or wouldn't be a witness for us, for the United States Corset Company, that he would lose too much in his business to run down town to be witness in such case. Generally, that he wouldn't have anything to do with it at all.

330 Q. 5. Look at the corset marked "Exhibit Johnson Corset No. 2," and state what kind of a corset it is—in the quality of its weaving.

A. That is about an average corset, as we weave them in our factory, on sixteen-bone corsets.

Q. 6. Don't you see certain places, marked with ink, thereon? If yea, state how that fabric will compare with the ordinary run of woven goods.

A. I do see some marks with ink. You will find that mostly in every corset where there is a few ends out, but this is more careless of the weaver that she did leave the ends out; and then this will show more in light weaving as in heavy kind of goods. It is, any way, hard to find a perfect woven corset, or any other article.

And being cross-examined by Mr. Keller, witness says:

X Q. 7. Will you repeat, in the words used by Baer, what he said about weaving corsets at Morrisania, or in the Convex Weaving Company's Works, with the pockets stopped off in weaving, and at the second interviews of which you testified?

A. At the first time when I seen Mr. Baer—this is so long ago, and I didn't take much notice of it, that I can tell the whole conversation over again on that point, while I did hear from Mr. Baer all I wanted to find out, and he told me that they had stopped off the pockets by weaving in Morrisania. I can't say anything else, as I have said before, on account of the second and third interviews I had with Mr. Baer.

331 X Q. 8. As you say that he told you that they had stopped off the pockets in weaving at Morrisania, at your first interview, what was the object of your second visit to him on the same subject?

A. The second visit I made to Mr. Baer was that Mr. Lyall asked me to go along with him to Mr. Baer, and to introduce him to him.

X Q. 9. Had you told Mr. Lyall what Mr. Baer had said at your first interview?

A. Yes, sir.

X Q. 10. Was it because that he doubted your word that he wanted to go and ascertain for himself?

A. I don't know what Mr. Lyall thought about it. I leave that to Mr. Lyall to answer.

X Q. 11. At any of the interviews which you had with Baer did you make any motions with your fingers indicative of the passage of money if he would go and testify for the defendants in this suit?

A. I leave this question to Mr. Baer; as much as I can find out from this question, that Mr. Keller means that I had offered some money to Mr. Baer.

And being re-examined by Mr. Witter, witness says:

R. D. Q. 12. Please state whether you did, or did not, make any such motions or indications as are spoken of in the 11th cross-question.

(Objected to by Mr. Keller, as it is incompetent on re-examination-in-chief to ask questions which the witness virtually refused to answer on cross-examination.)

A. That is hard for me to remember, what I have done with my
332 fingers through the whole conversation I had with Mr. Baer; but I am sure that I didn't offer any money to Mr. Baer.

CHARLES ROBERT SAATWEBER.

Subscribed and sworn to this 24th January, 1874.

JOSEPH GUTMAN, JR.,
Examiner, &c.

Examination further adjourned to January 26, 1874, at 3 p. m.

JOSEPH GUTMAN, JR.,
Examiner, &c.

333 At a stated term of the circuit court of the United States of America for the southern district of New York, in the second circuit, held at the United States court-rooms in the city of New York on Monday, the fourth day of May, in the year of our Lord one thousand eight hundred and seventy-four.

Present: The honorable Samuel Blatchford, circuit judge.

MORITZ COHN
vs.
THE UNITED STATES CORSET COMPANY ET AL.

The above cause coming on for final hearing upon pleadings and proofs, Mr. Charles M. Keller is heard in behalf of the complainants.

334 At a stated term of the circuit court of the United States of America for the southern district of New York, in the second circuit, held at the United States court-rooms in the city of New York on Tuesday, the fifth day of May, in the year of our Lord one thousand eight hundred and seventy-four.

Present: the honorable Samuel Blatchford, circuit judge.

MORITZ COHN
vs.
THE UNITED STATES CORSET COMPANY.

The above cause being still on hearing, Mr. Charles M. Keller concludes in behalf of the complainants.

Mr. George Gifford is heard in behalf of the defendant.
Mr. Keller is heard in reply.
Cur. adv. vult.

335 U. S. circuit court.

MORITZ COHN
vs.
THE UNITED STATES CORSET COMPANY AND others.

Blatchford, J.:

This suit is brought on letters-patent granted to the plaintiff April 15th, 1873, for an "improvement in corsets." The specification of the patent says: "Previous to my invention it has been customary, in the manufacture of corsets, to weave the material with pocket-like openings or passages running through from edge to edge, or all stopped and finished off at a uniform distance from the edge, and adapted to receive the bones, which are inserted to stay the woven fabric, and which serve as braces to give shape to and support the figure of the wearer. This method of manufacturing the corsets necessarily involves a great deal of hand-labor, and, consequently, expense in stitching up the ends, where they are woven with pockets running through from edge to edge, to hold the bones in place, or else the upper ends of the bones are necessarily all located at a uniform distance
336 from the edge, resulting in a less perfectly-shaped corset than is produced by following out my invention.

I propose by my invention to overcome the objections just named, and produce a corset in which the location or position of the bones endwise shall be predetermined with the accuracy of the Jacquard in the process of weaving the corset stuff or material, while I at the same time effect a great saving of labor and expense and give a more perfect shape. My invention has for its main object, therefore, not only the production of a better article, but also a reduction in the cost of manufacture; and to these ends, my inventions consists in having the pocket-like openings or passages into which the bones are put closed up near one end at that point at which it is designed to have the end of each bone located, as will be hereinafter more fully set forth." The drawings then represent two corsets. One is made according to the mode of manufacture stated to have been theretofore most generally practised; that is, with
337 the bones secured in place endwise in the pockets by stitching, after the insertion of the bone, so as to retain the bones endwise by closing up the pockets, it being, when woven, a passage running through from edge to edge. "This," the specification says, "is in accordance with or illustrates the mode of manufacture originally practised, and only departed from prior to my invention, as heretofore explained." The other corset represented in the drawings is one made according to the plan of the patentee.

The specification states that instead of having the woven fabric of the corset made with pocket-like openings or passages running through from edge to edge, or up to a uniform distance from the edge, the patentee proposes to have such woven fabric "woven with pockets or passages which extend from one edge of the fabric toward the other, but stop short of the latter at such point or locality as is predetermined for the location of the end of each bone, according to the design or shape to be given to the corset as shown."

It also states that the fabric is woven with the pockets extending
338 from one edge of the fabric towards the other edge as far as certain points which are not at uniform distances from either edge; that from those points only to the latter edge the fabric is woven solid or without any passages; that the bones are made of the proper length, and are inserted at the open ends of the pockets; and that, after their insertion, the bones are pushed home to the bottoms of their respective pockets and the mouths or open ends of the pockets are then closed up by the stitching and binding of the edge, and the perfect retention of the bones is thus effected.

The specification proceeds: "It will be understood that, by forming the corset as described, with pockets closed at one end, and weaving in such pockets of varying lengths, I am enabled to determine, in the manufacture of the corset fabric, the precise points to which the subsequently-inserted bones shall extend, and thus pattern any number of corsets exactly alike and to the most desirable model.

339 Corsets made according to my improved plan, it will be seen, can be made to a perfect and regular pattern, will be more desirable in appearance, and can be produced at less cost than those made according to the mode of manufacture practised previous to my invention. I am aware of and do not claim a woven corset with the pockets stopped and finished off at a uniform distance from the edge. I am also aware of and do not claim a hand-made corset with pockets of varying lengths stitched on." The claim is in these words: "A corset having the pockets for the reception of the bones formed in the weaving, and varying in length relatively to each other, as desired, substantially in the manner and for the purpose set forth."

The application for the patent was made on the 30th of January, 1873. In the specification originally presented, there was no recognition of the fact that prior to the plaintiff's invention it has been customary in the manufacture of corsets to weave the material with pocket-like openings or passages stopped and finished off at a uniform dis-
340 tance from the edge; and it was stated in such specification that it had always been necessary to insert the bones in pocket-like openings or passages running through from edge to edge, and then to secure each bone endwise by sewing. Such specification proceeded on the assertion that the plaintiff was the first person who stopped or finished off by weaving the bone-pockets, which had before been woven to run through from edge to edge, and the first person who thus dispensed with the operation of fastening endwise by stitching the bones in such bone-pockets, and the first person who, by the process of weaving, closed up such bone-pockets at the place where the end of the inserted bone was to be located. The claim applied for in such specification was a claim to "a corset woven with the pockets for the bones closed at one end, substantially as and for the purpose set forth." On the 26th of February, 1873, the application was rejected, on the ground that it had been anticipated by what was stated to be "English patent No.
341 143, of 1854." This reference was to a "provisional specification left by John Henry Johnson at the Office of the Commissioners of Patents, with his petition, on the 20th January, 1854," which says, "This invention received provisional protection, but notice to proceed with the application for letters-patent was not given within the time prescribed by the act." The invention is called in such provisional specification, an "invention for improvements in the manufacture of stays or corsets," and is therein stated to have been communicated to Johnson by Adolphe Georges Geresme, of Paris, in the empire of France, manufacturer.

The entire text of such provisional specification is in these words: "This invention relates to the manufacture of what are known as woven corsets, and consists in the employment of the Jacquards in the loom, one of which effects the shape or contour of the corset, and the other the formation of the double portions or slots for the introduction of the whale-bones. These slots or double portions are made simultaneously with the single parts of the corset, and in place of being terminated in a point they are finished square off, and at any required length in the corset, instead of always running the entire length, as is usually the case in woven corsets. When the corset is taken from the loom, the whalebones are inserted into these cases and the border' are formed, thus completing the article, which contains all the elegance and graceful contour of sewn corsets made by manual labor." On the 12th of March, 1873, amendments were made in the specification and claim, but none which limited the scope claimed for the invention. On the 15th of March, 1873, the application was again rejected. On the 25th of March, 1873, the claim was amended so as to read as it is in the patent issued, but the application was again rejected March 29th, 1873. On the 10th of April, 1873, the specification and claim which are formed in the patent issued were presented, and the patent was, on the next day, ordered to issue. In an argument addressed to the Patent-Office, on behalf of the patentee, on the 12th of March, 1873, in reference to what appears in the provisional specification of Johnson, it is said: "Prior to Cohn's invention, the material for corsets had been woven into the required shape, with the gusset, &c., by the action of the Jacquard of the loom, and the openings for pockets for the bones were woven through from selvage to selvage of the stuff, each pocket terminating in a sort of points. As the selvages were cut off afterwards, the pockets were of course left open at the ends, necessitating the adjustment of the bones by hand and their securement in the proper position endwise by sewing. It is a fact known to all those in the corset trade that all imported corsets are, and have for years been, woven after this fashion. No one in this country has ever seen a corset with pockets woven of different lengths to determine the position of the bones endwise and hold the bones in until the making of such corsets by Cohn; and the presumption is that no such corsets as just named were ever made abroad. Now, in view of these facts, the fair presumption is, that what the English patent cited alludes to and means is simply a woven corset, having the pockets in lieu of closed pointedly near the selvage, in the old-fashioned way, stopped off square, at any required distance from the selvage, but not at different distances in one corset, for the purpose of regulating the position endwise of a number of bones of different lengths and thus determining the design or figure of the corset. At any rate, no such thing as a corset with its pockets woven of various lengths is described in this very brief English specification; nor has any such corset ever come here from abroad. As it is necessary in a fine corset to have the bones of different lengths, and to have the ends of the bones placed at certain points in the pockets, it follows that in a corset woven as proposed in the English patent, with all the pockets one length, the adjustment by hand, and securing with stitching of many of the bones, would be necessary, and hence, by so weaving the corset, (with square-bottomed pockets all the same length,) no particular advantage would be gained, and it is reasonable from this to conclude that, for these reasons, what the English patentee proposed has never gone into practice abroad and been imported here. All the surrounding

facts and circumstances, to say the least, raise a very strong doubt as to whether this English specification really describes or its author ever contemplated the invention of Cohn, and, in view of such doubt, the applicant is entitled to his claim." In pursuance of the views set forth in this argument, the specification finally presented, and which is the one annexed to the patent, manifestly refers to the Johnson invention, in saying that in weaving the material the pocket-like openings or passages has before been stopped and finished off at a uniform distance from the edge, and then goes on to say that the woven fabric of the patentee's corset, in lieu of being made with pocket-like openings or passages, running through from edge to edge, or up to a uniform distance from the edge, is to be "woven with pockets or passages which extend
from one edge of the fabric toward the other, but stop short of
346 the latter at such points or locality as is predetermined for the
location of the end of each bone, according to the design or shape to be given to the corset, as shown," and then disclaims "a woven corset with the pockets stopped and finished off at a uniform distance from the edge," and limits the claim to pockets "formed in the weaving, and varying in length relatively to each other, as desired."

The principle defence relied on in this case is, that the invention of the patentee is found in the Johnson provisional specification, regarded not as a patent, but as a publication printed in England prior to the patentee's invention. The Johnson specification, in order to be sufficient to invalidate the plaintiff's patent, must describe the thing which the plaintiff's patent claims, and must do so in a manner so distinct and clear as to leave no reasonable doubt that the thing described is the same.

The 61st section of the act of July 8th, 1870, (16 U. S. Stat. at Large, 208,) provides that where it is set up as special matter of defence to a
suit for the infringement of a patent, that the invention covered
347 by it had been previously described in some printed publication,
and such special matter is found for the defendants, judgment shall be rendered for the defendant'. Therefore, this defence must be established affirmatively by the defendant, in order to be found for him, the patent having been issued and standing until overthrown.

The plaintiff's patent claims distinctly that the corset, to be the plaintiff's corset, must not only have the pockets stopped and finished off in the weaving, but must have them varying in length relatively to each other, as described, each pocket starting from one edge of the fabric and running towards the other, but stopping short of it at a point predetermined as the point at which the end of the bone to be inserted in that pocket is to be located, according to the shape to be given to the corset. Now, while the Johnson specification or description is brief, it sets forth distinctly what it purports to set forth in regard to a woven
corset. It sets forth in that respect that the shape or contour
348 of the corset is to be given by weaving; that the double portion
or slots for the introduction of the whalebones are to be formed by weaving, and are to be finished square off, in place of being terminated in a point, and are to be finished off at any required length in the corset, instead of always running the entire length, as is usually the case in woven corsets; that when the corset is taken from the loom, the article is completed by inserted the whalebones into these cases and forming the borders, and that the completed article contains all the elegance and graceful contour of sewn corsets made by manual labor. The matters in dispute is as to whether Johnson describes pockets varying in length relatively to each other, and each pocket stopping at

a point predetermined, acording to the shape designed for the corset, or the point where the end of the bone to be inserted in that pocket is to be located. The determination of the point where the end of the bone and the end of the pocket are to be is governed, according to the plaintiff's specification, solely by the shape to be given to the corset. No particular length of pocket, and
349 no particular location of the end of every bone is set forth in the plaintiff's specification, as giving or conducing to give any particular shape to the corset. That whole matter rests in the will of the manufacturer. All that the plaintiff's specification really says is that the patentee intends to stop off his pockets by weaving at any required point, and thus make them of any required length, and that the shape to be given to the corset will demand that the pockets be stopped off at definite points to enable the bones to be the proper bones for such shape, and that this will require that the pockets in the corset shall vary in length relatively to each other. It was well known that the shape to be given to a woven corset demanded that the pockets should be stopped off at definite points to enable the bones to be the proper bones for such shape; and it was well known that this required that the pockets in a corset should vary in length relatively to each other. This was known before the date of Johnson's specification; and Johnson, in that
350 specification, speaks of the elegance and graceful contour of his corset, necessarily implying that his pockets and bones are of proper lengths to give such elegance and grace of contour, and not of such lengths as to defeat such a result. Therefore, in reality, all that the plaintiff says in his specification is that he intends to stop off his pockets by weaving at any required point, and thus make them of any required length. Johnson stops off his pockets by weaving at any required length in the corset. There is no just foundation for the idea that Johnson describes stopping off the pockets at a uniform length. It was a part of the history of the art, at the date of Johnson's specification, that the bones in a corset must be of varying lengths relatively to each other in order to suit the shape of the wearer, and give any grace of contour, and consequently that the pockets containing the bones must be stopped off at varying lengths in the same corset. No person desiring to make a saleable corset, much less one described by Johnson as containing "elegance
351 and graceful contour," would at the date of Johnson's specification have made the bones or the pockets of uniform length. Such a corset would not be a corset of proper shape, or, in the language of one of the witnesses, would be a corset without a shape. When the pockets, prior to Johnson's specification, were woven the entire length, they were stopped off by sewing at varying heights in the same corset, according to the varying lengths assigned to the various bones, to produce the predetermined shape of the corset. When, therefore, in view of such state of the art, Johnson directs the pockets to be finished by weaving at any required length in the corset, he necessarily conveys the idea that the weaving can be employed to stop off the several pockets at the *several pockets at the* several places where they had before been stopped off by sewing. In view of what there is in Johnson's specification, the plaintiff's patent conveys no new idea. It says that each pocket is to be stopped, by weaving, at the places where the ends of the
352 bone which is to be inserted in such pocket is to be, and that the ends of the bones are not all to be at a uniform distance from the openings of the pockets. Johnson says the same thing, in saying that the slots are to be finished at any required length in the corset, when his language is read in view of the state of the art in January, 1854.

It is urged for the plaintiff that there is no evidence that such a corset as the plaintiff's ever existed, made in pursuance of Johnson's description. But it must be assumed from Johnson's language that such a corset as he describes existed, for he speaks of it as a corset which contains elegance and graceful contour. Moreover, if the description by Johnson is a sufficient description of the plaintiff's corset to show its structure in the particulars covered by the claim of the plaintiff's patent, it is not necessary to show otherwise the existence or use of the corset described by Johnson.

It is also urged that Johnson does not sufficiently describe how the two Jacquards are to be arranged so as to produce the features
353 he describes as pertaining to his woven corset. It is not necessary this should have been described.

The plaintiff in his specification merely points out the features which exist in his woven corset, but does not describe how the Jacquard or the loom is to produce those features. It must be assumed that Johnson and Geresme had employed two Jacquards to produce the features Johnson describes, one Jacquard to effect the shape or contour of the corset and the other to form the slots. John says that the slots "are made" simultaneously with the single parts of the corset, and "are finished" square off; that the whalebones "are inserted" into these cases and the borders "are formed," and that the article thus completed "contains" all the elegance and graceful contour of sewn corsets made by manual labor. The plaintiff makes no claim in his patent to any invention in connection with the loom or the Jacquard, or the particular shape of the corset. Therefore, he describes nothing in those respects.
354 He describes, and needed to describe, only the features of his corset as an article. So we are to look in Johnson's specification only for a description of like features in a woven corset, and not for any description of any means for producing those features. It might with as much force be urged that the plaintiff's specification does not sufficiently describe his invention, because it does not state how the loom and the Jacquard are to be arranged to produce the described features of the corset, but merely speaks of using the Jacquard in a loom. To this suggestion it is replied that any weavers would know how to do that when told by the plaintiff what features were to exist in the corset woven; but that no weaver would have known how to arrange two Jacquards to produce like features in the corset woven when told by Johnson that such features were to exist in the corset woven. Yet the plaintiff shows by the testimony that after he had determined at what points he wished the pockets to be stopped off to give the re-
355 quired shape to the corset, he tried in vain for some time to make his loom and Jacquard so work as to stop off the pockets at such points, and that it finally required the employment of an experienced weaver and a special arrangement of cords, needles, and cards to produce the desired result; but there is nothing of this in his specification. If Johnson's description is insufficient in this respect, the plaintiff's description is also insufficient.

It is also insisted that the defendants must prove that at the date of Johnson's description a loom with two Jacquards, suitable to produce the features required in the corset woven, was known to the arts, and that none such was known to Johnson, because his description declares that the invention consists in the employment of two Jacquards, with the functions assigned to them respectively. But if such employment of two Jacquards was invented by Gersme it was known to him, and the description shows that it had been used, and that the described

356 corset had been made by means of it. It would be more proper, therefore, to say that it is for the plaintiff to show that such employment of two Jacquards was not known to Gersme. No such fact has been shown. On the contrary, the defendants have proved that they have caused corsets to be woven with the pockets stopped off by weaving and of varying lengths in the same corset by the employment of two Jacquards in the loom, one effecting the shape or contour of the corset and the other the formation of the pockets, and the pockets being made simultaneously with the single parts of the corset and being finished square off.

If the plaintiff has made an invention, it is in the means of producing the features he describes as belonging to the corset described, and it is not the corset itself with those features. Such a corset is described by Johnson.

The above views are fatal to the validity of the patent. But I ought to say that the defendants have not established a forfeiture by
357 the patentee of his rights, as set up in the answer, by his having sold his corset and allowed it to be used for more than two years before he applied for his patent, nor the defence of a prior knowledge and use of the corset by the Convex Weaving Company.

The bill must be dismissed with costs.

Charles M. Keller for the plaintiff; George Gifford and W. C. Witter for the defendants.

358 (Indorsed:) U. S. circuit court. Moritz Cohn vs. The United States Corset Company & others. Decision June 20th, 1874. Filed June 20th, 1874.

359 At a stated term of the circuit court of the United States of America for the southern district of New York, held at the United States court-rooms, No. 41 Chambers street, in the city of New York, on the twenty-seventh day of June, in the year of our Lord one thousand eight hundred and seventy-four.

Present, Hon. Samuel Blatchford, district judge.

MORITZ COHN
vs.
THE UNITED STATES CORSET COMPANY, JONAS H. LANE, and WILLIAM LYALL. } In equity.

This cause came on to be heard at the April, 1874, term of this court, and was argued by counsel; and thereupon, upon consideration thereof, it is ordered, adjudged, and decreed as follows:

That the said complainant's bill of complaint in the above-entitled case be, and the same is hereby, dismissed with costs to the defendants therein to be taxed, and that they have execution therefor.

(Signed) SAML. BLATCHFORD.

360 (Endorsed:) U. S. circuit court southern dist. N. Y. In equity. Moritz Cohn vs. The United States Corset Co., J. H. Lane, & Wm. Lyall. Final decree. Geo. Gifford, defts.' solicitor, 34 Beach street, N. Y. We have no objection to the form of the within decree. Keller & Blake, complt.'s solrs. Filed June 29, 1874.

361 Supreme Court of the United States.

MORITZ COHN, APPLT.,
vs.
THE UNITED STATES CORSET CO. ET ALS.,
app'lee.

To the honorable the Supreme Court of the United States:

The appeal of Moritz Cohn, the above-named complainant and appellant, respectfully showeth:

That upon the 13th day of June, 1873, the above-named complainant filed his bill of complaint in the circuit court of the United States for the southern district of New York, against the above-named defendants, alleging the grant to him of United States letters-patent, dated the fifteenth day of April, A. D. 1873, and numbered 137893, being for a new and useful "improvement in corsets," and averring that he was the original, true, and first inventor of the said improvement; and further alleging the infringement of said letters-patent by the defendants herein, and their refusal to settle for past damages, and for the infringement, and praying for an accounting and injunctions against the defendants aforesaid.

362 That said defendants appeared and answered, and in their answer admitted the grant of said letters-patent, but denied that the said Cohn, complainant and appellant, was the original, true, and first inventor thereof, and alleged that said improvement was well known, and that descriptions thereof had been published before the invention thereof by said Cohn, and that prior knowledge and use of the said invention was had by various persons in the city of New York and elsewhere, and that corsets, embracing the said invention, had been made by various persons and corporations within the United States, prior to the alleged invention by said Cohn, and that it had been published and described in various foreign publication' and patents, and that the said invention had been used by others with the consent and allowance of the said Cohn for more that two years prior to his application, and that, therefore, the said patent was void by abandonment; and also that the specification and claim were defective, and denied infringement, and prayed for a dismissal with costs.

That replication was duly filed to the said answer, and testimony
363 taken in said cause, and was argued at the April term, 1874, of the said court.

That on or about the 26th June, 1874, a final decree was made and pronounced herein in which it was in substance adjudged and decreed that complainant's bill of complaint should be dismissed with costs to the defendants to be taxed, and that they have execution therefor, said costs being fixed at $614.93.

Wherefore, this appellant appeals from the whole of said decree of said circuit court, and respectfully prays that said decree, and the bill, answer, pleadings, depositions, evidence, exhibits, and proceedings in the said cause may be sent to the Supreme Court of the United States without delay, and that the said Supreme Court will proceed to hear the said cause anew, and that the said decree of the circuit court, and every part thereof, may be reversed, with costs, or such other decree as to the said Supreme Court shall seem just.

KELLER & BLAKE,
Solicitors for Complt.

NEW YORK, *July* 31*st*, 1874.
Appeal allowed August 4, 1874.

SAMUEL BLATCHFORD.

364 (Endorsed:) Supreme Court of the United States. Maritz Cohn, applt., vs. The U. S. Corset Co., et als., app'lees. Petition of appeal. Filed Aug. 5, 1874.

365 Circuit court of the United States of America, for the southern district of New York, in the second circuit.

MORITZ COHN, APPLT.,
vs.
THE UNITED STATES CORSET COMPANY ET AL., appellee. } Bond for costs.

Know all men by these presents that we, Moritz Cohn, 256 West 23rd street, Samuel Galland, 103 East 79th street, and J. I. West, 430 Fifth avenue, all of the city, county, and State of New York, are held and firmly bound unto the above-named United States Corset Co., J. H. Lane, & Wm. Lyall in the sum of fifteen hundred ($1,500) dollars, to be paid to the said U. S. Corset Co., Lane, & Lyall, for the payment of which well and truly to be made, we bind ourselves, and each of us, our and each of our heirs, executors, and administrators, jointly and severally, firmly by these presents, sealed with our seals, and dated the third day of August, in the year of our Lord one thousand eight hundred and seventy-four.

Whereas the above-named Moritz Cohn has prosecuted an appeal to the Supreme Court of the United States to reverse the decree rendered in the above-entitled suit by the judge of the circuit court of the United States for the southern district of New York:

Now, therefore, the condition of this obligation is such that, if the above-named Moritz Cohn shall prosecute his said appeal to effect and answer all damages and costs if he fail to make his said appeal good, then this obligation shall be void; otherwise, the same shall be and remain in full force and virtue.

MORITZ COHN.
SAML. GALLAND.
J. I. WEST.

Sealed and delivered, and taken and acknowledged, this 3rd day of August, 1874, before me,

PHILLIPS ABBOTT,
Notary Public, New York County.

366 UNITED STATES OF AMERICA,
Southern District of New York, ss:

Samuel Galland and J. I. West, both and each for himself, being duly sworn, do depose and say that they are both freeholders in the city of New York aforesaid, & that they are worth the sum of fifteen hundred dollars over and above all their just debts and liabilities.

SAML. GALLAND.
J. I. WEST.

Sworn to this third day of August, A. D. 1874, before me.

PHILLIPS ABBOTT,
Notary Public, New York County.

The foregoing bond is approved as to form and amount and the sufficiency of the sureties.

SAML. BLATCHFORD.

AUGUST 4, 1874.

(Indorsed:) Vol. , page . U. S. circuit court. Moritz Cohn, applt., vs. The U. S. Corset Co., et als., appellees. Bond for costs on appeal. , proctor. Filed this 5th day of August, 1874.

367 U. S. circuit court, southern district of New York.

MORITZ COHN
vs.
THE UNITED STATES CORSET COMPANY ET AL. } In equity.

It is hereby consented by and between counsel for the respective parties herein that each party may take, upon the order of the court to that effect, their own models & exhibits, documentary & others, that were used upon the hearing of the above-entitled cause in this court, the same to be produced by each party upon the argument of this cause upon the appeal to the Supreme Court of the United States.

New York, Sept. 26, 1874.

(Signed)

KELLER & BLAKE,
Solrs. for Compt.
GEO. GIFFORD,
Solrs. for Defts.

368 United States circuit court, southern district of New York.

MORITZ COHN
vs.
THE UNITED STATES CORSET COMPANY ET AL. } In equity.

Upon reading and filing the consent hereto attached, & upon due consideration thereon—

It is hereby ordered that the clerk of this court deliver to the parties herein, respectively, the models and exhibits, both documentary and others, that were put in evidence & used upon the hearing of the above cause in this court; that is to say, that he deliver to complainants all complainants' models & exhibits, and to the defendants all defendants' models & exhibits, the same to be produced by the parties herein upon the hearing of this cause upon appeal before the Supreme Court of the United States, and then such of them as belong to the files of this court to be returned thereto.

(Signed)

SAML. BLATCHFORD.

369 (Indorsed:) U. S. C. C., S. D. N. Y. In equity. Moritz Cohn vs. The United States Corset Company & others. Consent & order removing models & exhibits from clerk's office. Filed Oct. 1, 1874.

370 Supreme Court of the United States.

By the honorable Samuel Blatchford, one of the judges of the circuit court of the United States for the southern district of New York, second circuit, to the United States Corset Company, Jonas H. Lane, and William Lyall:

Whereas Moritz Cohn has lately appealed to the Supreme Court of the United States from a decree lately rendered in the circuit court of the United States for the southern district of New York, made in favor of you, the said United States Corset Company, and has filed the security required by law, you are therefore hereby cited to appear before

the said Supreme Court, at the city of Washington, on the 12th day of October, 1874, to do and receive what may appertain to justice to be done in the premises.

Given under my hand at the city of New York, in the southern district of New York, in the second circuit, the 4th day of August, in the year of our Lord one thousand eight hundred and seventy-four.

(Signed) SAML. BLATCHFORD.

371 (Endorsed:) Supreme Court of the United States. Moritz Cohn, applt., vs. The United States Corset Co. et als., app'lees. Citation. Due service of a copy of within admitted this 10th day of August, 1874. John H. V. Arnold, defts'. solr., per Geo. Gifford, of counsel. Filed August 15, 1874.

372 UNITED STATES OF AMERICA,
Southern District of New York, ss:

I, Kenneth G. White, clerk of the circuit court of the United States of America for the southern district of New York, in the second circuit, do hereby certify that the foregoing pages, numbered from one to 371, inclusive, contain a true and complete transcript of the record and proceedings had in said court in the case of Moritz Cohn against the United States Corset Company et al., as the same remain of record and on file in said office.

In testimony whereof I have caused the seal of the said court to be hereunto affixed at the city of New York, in the southern district of New York, in the second circuit, this first day of October, in the year of our Lord one thousand eight hundred and seventy-four, and of the Independence of the said United States the ninety-ninth.

[SEAL.] KENNETH G. WHITE, *Clerk.*

(Indorsement on cover:) S. New York C. C. U. S. No. 106. Moritz Cohn, appellant, vs. The United States Corset Company, Jonas H. Lane, & William Lyall. Filed 9th October, 1874.

Supreme Court of the United States.

MORRITZ COHN, APPELLANT

vs.

THE UNITED STATES CORSET COMPANY,
JONAS H. LANE and
WILLIAM LYALL.

BRIEF FOR THE APPELLANT.

B. F. THURSTON.

United States Supreme Court.

MORITZ COHN, APPELLANTS.
vs.
THE UNITED STATES CORSET COMPANY.
JONAS H. LANE,
AND
WILLIAM LYALL.

Appeal from the Circuit Court for the Southern District of New York.
No. 106.

BRIEF FOR THE APPELLANTS.

Statement of the Issues in the Case.

The bill of complaint in this case is for an injunction and account of profits in common form, and charges that the defendants have infringed certain letters patent for an "*improvement in Corsets*" which was granted to Moritz Cohn, the appellant in this court, April 15th, 1873.

The defendants do not deny making and selling corsets of the character described in the patent to Cohn, and containing the alleged improvement recited in the claim of said patent, but they attack the validity of the patent on the following grounds.

First. That the invention set forth and claimed in

a paper filed on the 20th of January 1854, in the British Patent office by one John Henry Johnson, who as the agent for one Geresme a citizen of France, took for his client under the provisions of the British patent act, provisional protection for an improvement in the "manufacture of stays or corsets".

Second. That corsets containing the alleged invention of Cohn were manufactured and put on sale by him for more than two years, before the date of the filing of his application for a patent.

Third. That corsets containing the alleged invention of Cohn were before his invention, made and sold by two different parties, viz.: by the Convex Weaving Company of Morisania, and by John Graham of New York.

Proofs upon both sides were duly taken, and the cause was heard before the Circuit Court of the United States, at the city of New York, at the May term 1874.

Mr. Justice Blatchford before whom the cause was tried, delivered his opinion June 20, 1874. (Rec. pp. 168-174,) and on the 29th of June following, a decree was entered dismissing the bill of complaint with costs. (Rec. fol. 359.) From this decree, an appeal was duly taken to this Court.

Assignment of Error.

The Circuit Court as appears from the opinion filed in the case found adversely to the appellees upon the issue that Cohn had forfeited his right to letters patent on account of sales made by him of corsets containing his invention, for more than two years before his application for a patent and also found adversely to them upon the issue of prior knowledge and use of the invention by the Convex Weaving Company, but did find that the patent was invalid by reason of the matters contained in the prior publication of the provisional specification of Johnson. (Rec. fol. 357.)

The appellant now assigns as a ground of reversal of the decree that the Circuit Court erred in finding

that the Johnson specification of prior date, contained the description of the Cohn invention.

Statement of the Cohn invention.

The invention set forth in the specification of the Cohn patent (Rec. pp, 55, 57,) relates to an improved article of manufacture which consists in a woven corset, the pockets for the whale bones in which are stopped off at variable distances from the upper edge to suit the lengths of the different bones, cotemporanously with the formation of the corset and by the process of weaving.

The patentee states in substance that before his invention, it was customary to weave the corset material with tubular passages running through from edge to edge, and that it became necessary to resort to considerable hand labor, involving an important item of expense, for making such passages into pockets, by stitching through and through at the right places where the upper ends of the bones were to terminate.

The patentee pending his application for a patent, was referred to the provisional specification of Johnson in 1854, as affecting his invention in the form as first stated by him in his specification, and he thereupon so modified his application as to disclaim the invention described in that publication, as he understood it to be. He interpreted the Johnson specification to relate to a corset which required indeed, for its formation the mechanism for controlling the warp thread in weaving, invented by Jacquard, and in the process of weaving which corset, the bone pockets were closed at their upper ends, but at uniform distances from the edge of the corset. This construction would result in a less perfectly fitting corset, in case the bones were not terminated at variable distances from the edge, or would require the hand labor of "fanning," as stitching through and through the tubular passages is technically termed.

its main object therefore, not only the production of a better article, but also a reduction in the cost of manufacture, and to these ends my invention consists in having the pocket like openings or passages into which the bones are put, closed up near one end, at that point at which it is designed to have the end of each bone located."

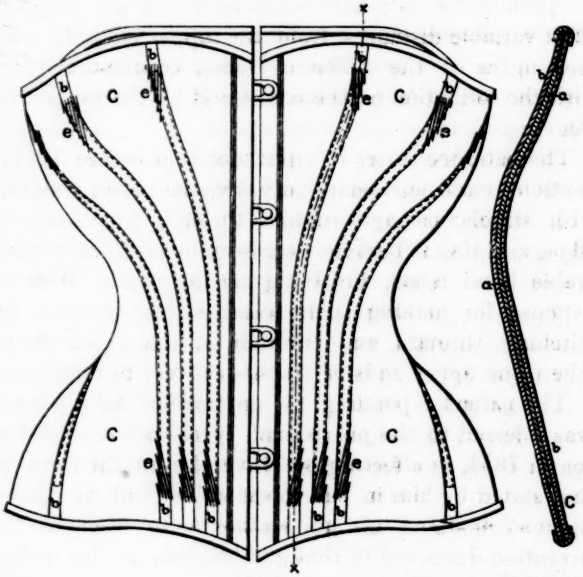

FIG. 1. FIG. 2.

Figures 1 and 2 in the patent show a corset with the tubular passages for the bones formed into pockets by stitching the two parts of the fabric together. This, says the patenee, "is in accordance with or illustrates the mode of manufacture originally practiced and only departed from prior to my invention, as heretofore explained" (referring to the Johnson description.)

The corset which is the subject of the patent is illustrated at figs., 3, 4, 5 in the drawings of the patent.

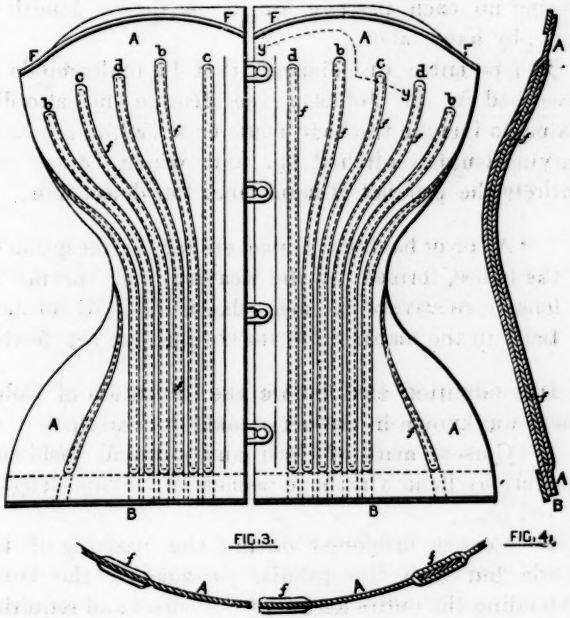

FIG. 3. FIG. 4.

FIG. 5.

The specification says. "A is the woven fabric of the corset, which in lieu of being made with pocket-like openings or passages running through from edge to edge, or up to a uniform distance from the edge, I propose to have woven with pockets or passages which extend from one edge of the fabric toward the other, but stop short of the latter at such point or locality as is predetermined for the location of the end of each bone according to the design or shape to be given to the corset."

The advantages resulting from this improved construction are stated to be, that in the manufacture of the corset fabric, the precise points to which the subsequently inserted bones shall extend, can be deter-

exactly alike, and to the most desirable model with a saving of all the expense incident to the operation of closing up each passage for its particular length of bone, by hand labor.

The patentee disclaims all that he understands is described in the Johnson specification and also disclaims to include the hand made corset with pockets of varying lengths stitched on, and which corset was entirely the product of hand labor but does claim

> "A corset having the pockets for the reception of the bones, formed in the weaving, and varying in length relatively to each other as desired, substantially in the manner and for the purpose set forth."

It is admitted that before the invention of Cohn, there was known in the art of making corsets,

1. Corsets made of cloth and cut, and fashioned entirely by hand with bone pockets of varying lengths sewed on.

2. Corsets fashioned during the weaving of the fabric but with the tubular passages for the bones extending the entire length of the corset and requiring the hand operation of "fanning" or stitching, to make the passages into pockets of the right lengths.

3. A woven corset in which the short pockets in the gussets as distinguished from the body bone pocket were necessarily from the shape of the gussets made to terminate in points (Exhibit Barnes p. 125,) the body bone pockets were required to be stopped off by the operation of hand stitching or fanning. In this description of corset the pockets terminated in points formed by the intersection. By woven threads —

4. Whatever it may be ascertained, is sufficiently described in the Johnson specification of 1854.

Omitting for the present any discussion of the defenses which set up that a prior knowledge of the thing patented was known to the Convex Weaving

moment any consideration of the Johnson specification, it is clear that in view of the preceding state of the art of making corsets above given, an improvement in the arrangement and combinations of the Jacquard mechanism which would enable a loom to stop off the bone pockets at the right places by the process of weaving and thereby save the cost and expense incident to the hand labor of stitching each tubular passage through and through to form pockets, would be a valuable improvement in the art of manufacturing such articles, and it would be equally true that a corset having its bone pockets so stopped off at the right lengths would be a proper patentable *product* of such improvement in the weaving mechanism for the reason that regarded by itself as a manufactured article it would be different in essential particulars from either the hand fashioned corset, cut out in pieces from cloth and sewed up by hand, and from the woven or loom fashioned corset the tubular passages of which were stopped off by hand sewing.

We purpose now in the first place to endeavor to show that the description contained in the Johnson specification is insufficient to render the Cohn patent invalid. And as introductory of this discussion it is proper to direct the attention of the Court to

What is required of a Foreign Patent or Publication to defeat an American Patent.

The law is well settled that to render a prior description sufficient to invalidate a patent it must describe the thing patented so fully and clearly that the description would answer for the specification of a patent. This Court has clearly stated the rule, in *Seymour v. Osborn*, 11 Wall., 515, thus:

> "Patented inventions cannot be superseded by the mere introduction of a foreign publication of the kind, though of prior date, unless the description and drawings contain and exhibit a substantial

exactly alike, and to the most desirable model with a saving of all the expense incident to the operation of closing up each passage for its particular length of bone, by hand labor.

The patentee disclaims all that he understands is described in the Johnson specification and also disclaims to include the hand made corset with pockets of varying lengths stitched on, and which corset was entirely the product of hand labor but does claim

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3. A woven corset in which the short pockets in the gussets as distinguished from the body bone pocket were necessarily from the shape of the gussets made to terminate in points (Exhibit Barnes p. 127,) the body bone pockets were required to be stopped off by the operation of hand stitching or fanning. In this description of corset the pockets terminated in points formed by the intersection. Sewn threads —

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"Patented inventions cannot be superseded by the mere introduction of a foreign publication of the kind, though of prior date, unless the description and drawings contain and exhibit a substantial

representation of the patented improvement, in such full, clear and exact terms as to enable any person skilled in the art or science to which it appertains, to make, construct, and practice the invention."

In the case of *Roberts v. Dickey*, 4 Fisher, 545, Judge Strong states:

"A patent is rendered invalid by a prior published description, only where that description was sufficient to give to the public a practical knowledge of the invention claimed."

In the English case of *Hill v. Evans*, quoted in Curtis on patents (section 378 *b*) the House of Lords sustained the decision of the Lord Chancellor where he had ruled as follows:

"If appeal be made to an antecedently published book or specification, the question is what is the nature and extent of the information thus acquired which is necessary to disprove the novelty of the subsequent patent? There is not, I think, any other general answer that can be given to the question than this, that the information as to the alleged invention, given by the prior publication, must, for the purpose of practical utility, be equal to that given by the subsequent patent. The invention must be shown to have been before made known. Whatever, therefore, is essential to the invention, must be read out of the prior publication."

The following is a full copy of the Johnson provisional Specification filed in the English Patent Office in the year 1853, and again filed in the year 1854.

"Manufacture of Stays or Corsets.

(This invention received provisional protection, but notice to proceed with the application for Letter-Patent was not given within the time prescribed by

Provisional Specification left by John Henry Johnson at the Office of Commissioners of Patents, with his Petition on 20th January, 1854.

I, J. H. Johnson, of 47 Lincon's Inn Fields, in county of Middlesex, and of Glasgow, North Britain, Gentleman, do hereby declare the nature of said Invention for Improvements in the Manufacture of Stays or Corsets communicated to me by Adolph George Geresme of Paris, in the Empire of France, manufac turer, to be as follows:

This invention relates to the manufacture of what are known as Woven Corsets, and consists in the employment of the (*two*) Jacquards in the loom, one of which effects the shape or contour of the Corset, and the other the formation of the *double portions* of slots for the introduction of the whalebones.

These slots or double portions are made simultaneously with the single parts of the Corset, and in place of being terminated in a point, they are finished square off, and at any required length in the Corsets, instead of always running the entire length, as is usually the case in woven Corsets.

When the Corset is taken from the loom, the whale-bones are inserted into these cases and the borders are formed, thus completing the article, which contains all the elegance and graceful contour of sewn Corsets made by manual labor."

The description contained in the above paper is too vague and indefinite to furnish any certain information as to the character of the corset which Geresme had made, or was proposing to make.

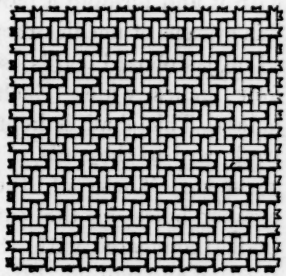
Certain things are sufficiently clear, but as to the material question whether the tubular passages for the whalebones were stopped off in the weaving at all so as to form pockets without subsequent fanning the specification is silent, and it is only from certain general expressions which are used that there exists

any foundation for the *conjecture* that possibly the bone passages were stopped off by weaving.

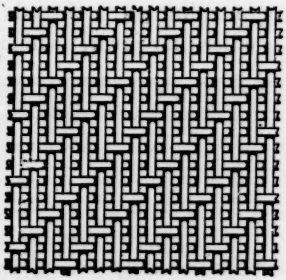
The mechanism which is universally known by the name of its inventor, Jacquard, consists of a means for controlling according to a predetermined pattern each and all of the warp threads of a loom. Before this invention the several sections of warp threads which require to be raised differently to produce figured designs, from what they would be in weaving a plain surface, were manipulated at the proper times by boys, whose duty it was to pull up the sections of warp involved in the formation of the figure, so as to produce that combination of warp and filling threads necessary to cause the figure to show upon the surface of the fabric. Suppose, for example, it is desired to weave a plain fabric. This can be done by the jacquard as well as by the common loom. In such fabric the warps which open to form the "shed" to allow the shuttle containing the spool of filling thread to pass through, and which are to interlace and close down over each warp thread are equally divided, that is to say, if there are 100 warp threads, the shed will be formed by 50 threads up and 50 threads down alternately changing place with each other. Suppose however that it is desired to have the surface of the fabric of a checquer board pattern, or a pattern made up of square figures, each square being composed of ten warp threads and ten threads of filling. And also suppose that these squares are to be of plain and twilled weaving in alternation. Now the Jacquard mechanism can easily be made to effect this result. For all the portions which are to be composed of plain weaving, the warp threads are equally divided to form the shed as before stated, but the portions which are to have a twilled surface have the warp threads which enter into their composition divided for each shed some what as follows: Nos. 1, 2, 5, 6, 9, 10 up, and Nos. 3, 4, 7, 8 down for the first pick of filling; then for the next shed Nos. 3, 4, 7, 8 are up and 1, 2, 5, 6, 9, 10 are down.

and so on in alternation throughout the ten changes of shed required to make the square. Or instead of this simple combination given, any other distribution of the warp threads may be made—as for instance 1 up and 9 down, for the first pick, then 3 up and 7 down for the second pick, then 4 up and 6 down for the third pick, and so on through all the combinations. The effects on the surface of the cloth vary with these different combinations.

To further illustrate this matter by a diagram, the annexed figure represents a specimen of plain woven cloth as it would appear when viewed through a microscope, the intersection of the threads are evidently alternate.

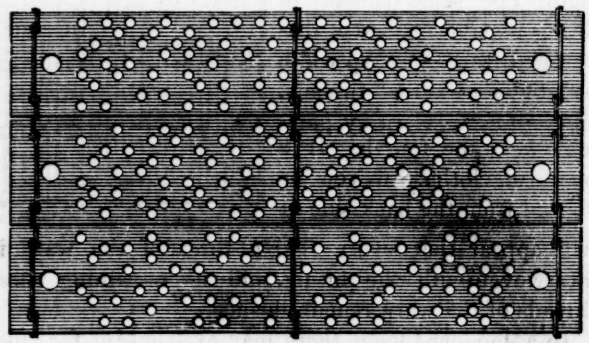


The next diagram exhibits a representation of twilled cloth. The same thread of filling remains flushed or disengaged from the warp while passing *over* three threads, and is tacked down by passing *under* the fourth. If a piece of cloth so woven be viewed from the back side it will appear that every *fourth* threadof the warp is interwoven with the filling, and the remaining *three* threads of the warp remain flushed.



In a Jacquard loom there may exist means for independently working each one of the warp threads, but this is not necessary for the reason that in weaving any pattern many of the warp threads are required to be worked simultaneously. The method by which the

understanding of the present case explained by the statement that there is a series of bars which have a positive up and down movement in a vertical plane, and which bars will engage with hooks formed on the ends of stout wires or small rods, and as such wires are connected by cords with the warp threads, thereby lift the latter. If any of these hooks however, are pushed out of the path of movement of the bars the warp threads connected with them will not be lifted. Now each of these hooks has a needle or straight stiff wire connected with it and forming a part of it. In combination with this system of needles there is an endless chain composed of pasteboard cards, say fourteen inches long by four inches wide. Each of which is punched with holes. This chain is kept in motion so as to present a fresh card to the ends of the needles for each change of shed. Those of the needles which come over against holes in the card enter such holes, and the hooks connected with them will not be disturbed in position and will be lifted, and as before stated, their connecting warp threads will be lifted also. Those needles, however, which come over against the un-



punched surface of the card will be pushed backward, carraying with them their hooks, and all such hooks will be out of the range of movement of the lifting bar. Thus the holes which are punched in each card

Jacquard loom for weaving figured fabrics, known before the invention of Geresme.

Before the date of the Johnson specification the use of the Jacquard loom for weaving figured fabrics was well known. Sometimes, for weaving a particular kind of fabric, two Jacquard attachments were employed in the same loom. A loom of this kind is described in the Mechanic's Magazine published in the year 1836 and is referred to in the testimony of the defendants expert, J. Boyd Eliot, (Record page 137, 139.

The loom however, described in this publication does not consist of two jacquards with each warp connected by cords with both jacquards. There are two jac quards, one of them having most of its cords connected in the usual way with the warps to produce, according to the design, the figures and a second or small jacquard to operate what are termed "shafts" (similar to these employed in a common harness loom) and the shafts are also connected by cords with the main jacquard. The shafts are to control the warps in weaving the ground of the fabric. The shafts can be operated either by the main or by the small auxiliary jacquard, but the warps are directly connected only with the main jacquard. If, for instance, a fabric is to be produced with a twilled ground such as could be woven in a harness loom without a jacquard by having say six leaves of heddles with one-sixth of the warps in each and the fabric is to have figures produced on such a ground, the loom will be mounted with six shafts to operate the warps precisely as with heddles in an ordinary loom and these shafts may be operated either by the main or the small auxiliary jacquard. And the other cards of the main jacquard will be connected in the usual way with the warps to produce the figuring.

As the ground in figured fabrics in some part of the design may extend across the whole width of the fabric it is necessary for the weaving of such fabrics that all

as the figures may occupy any part of the width of the fabric, all the warps must be separately under the control of the main jacquard. To meet all these requirements, all the cords of the main jacquard are provided with "mails" or harness eyes, through which the warp threads pass so that any of the warp threads may be lifted according to the design, by the main jacquard and when the ground is to be woven, then all the warps must be under the control of the shafts. To accomplish this, all the mailed cords of the main jacquards have loops in them of sufficient length to receive a shaft and so much longer than the vertical section of the shaft as the distance to which it is to be lifted by the main jacquard. It results from this contrivance that each of the cords of the main jacquard can be lifted either directly by the main jacquard or indirectly by the shafts—the mailed cords of the main jacquard being so connected with the shafts that each shaft shall be able to lift a given number of them according to the ground of the fabric to be woven.

Now so far as appears from the record, Geresme was the first person to apply the main and auxiliary jacquard mechanism which had previously been used for the weaving of the figured stuffs to the manufacture of *convex surfaced* or irregular shaped articles like corsets.

Convex weaving by the Jacquard.

The manner in which a piece of cloth can be woven convex will be readily understood when it is remembered that what is called convexity in weaving is obtained by inserting more filling between certain of the warp threads measuring from either edge of fabric then between the residue. If an ordinary rectangular piece of cloth is to be made convex by hand labor, the person wishing so to fashion it cuts a slit in the cloth to any desired distance less than the entire width and stitches into the slit, a "gore" or triangular shaped piece of cloth, thus causing a fullness of the fabric at

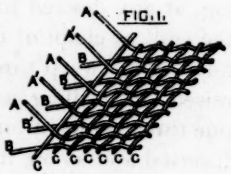
forming the same result for the reason heretofore given that each warp thread can be controlled independently of all the others. Hence during the process of weaving, at any desired time determined by the design of the endless chain of cards, a portion, say twenty out of forty of the warp threads measuring from the edge are raised and a filling inserted. For the next pick twenty-one threads out of forty-two are raised and the filling inserted and so on in progression until, say one hundred threads have been raised out of the five hundred which we will suppose compose the whole number of warps. The jacquard then commences to raise only ninety-nine threads and continues progressively for each pick to diminish the number until only twenty are raised, and then for the next pick the shuttle is sent with its filling thread through the whole width of warps and proceeds to weave regularly. It is evident that a gore piece would be thus woven in.

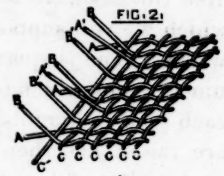
Method of Weaving Double Fabrics.

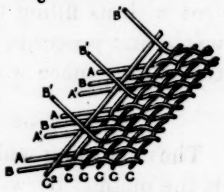
The next thing which it is proper should be understood is the method by which double fabrics can be woven by a jacquard loom. Let it be supposed that a tubular passage for a whalebone is to be woven in a piece of corset fabric. The warp threads in such fabrics are arranged parallel with each other and will be when the stuff is woven parallel or substantially so with the top and bottom edges of the corset. In other words, when the corset is upon the person, the line of warps will run around the body of the wearer. The weft or filling is of course inserted at right angles with the line of warps.

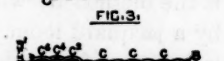
We will suppose that a space, say four inches in length, has been woven, and it is then necessary to start to make the tubular passage or in other words to weave the cloth double for the space of one-fourth of an inch. The jacquard mechanism takes for example every alternate warp thread of the whole series of say 2000 threads and divides these 1000 threads equally

is put in. The shuttle returns after these warp threads have closed over the first thread of filling putting in a second thread or filling. The other half of the warp threads are now by the jacquard formed into a shed and filling threads are inserted in this section of thewarp, as in the former case. The alternate formation of two separate sheds out of the line of warps continue until the requisite distance of one fourth of an inch has been woven, and asthe two separate divisions of warp threads do not interlace with each other and neither tacks down the filling threads of the other,it follows that two separate fabrics will be woven—one above the other. Each fabric contains just half as many warp threads as the single woven portions intermediate of the double portions contain. So soon as the jacquard ceases to so divide the warp but divides the entire warp to make *one shed*, the formation of the double fabric will cease and single weaving will proceed. The result is that a tubular passage is necessarily formed. The foregoing description for the sake of avoiding confusion, supposes that the weaving is to be plain weaving instead of twilled weaving. The principle would not be changed at all, in case the weaving was the result of one up, and two down, or any other combinations of warp threads in the weaving or of any other distribution of warp threads to form the face or back sides of the portions connecting the double parts.









Interpretation of the Johnson (Geresme) Specification.

If it be impossible to make this paper intelligible then it is no answer to the Cohn patent. Again if there are several interpretations which can be given to it, it will be impossible to say which one is correct. Again if, in order to make it describe the thing patented, inconsistent statements be rejected and words supplied not found in the paper, then the rule as established both in this and the English Courts as to what must be the character of a prior publication to *defeat* a patent is violated. I earnestly insist upon the right of the patentee in this case, to require that the Johnson (Geresme) specification should be strictly construed, that nothing should be conjectured as to its meaning but that it should clearly appear by unequivocal statement that the thing which is the subject of the Cohn patent is described in it, before it can be declared to anticipate a most meritorious improvement.

It appears from the Record in the case, (*McIntyre, p.* 53,) and the fact is also referred to in the opinion of Judge Blatchford, that the Specification accompanying the application of Cohn for a patent, when first filed in the Patent office described, the invention of Cohn to consist in stopping off the bone pockets by weaving during the process of forming the corset as distinguished from the old method of stopping them off by hand fanning, after the corset had been woven and consistently with this assertion he claimed "as a new manufacture," a corset woven with the pockets for the bones closed at one end substantially as and for the purposes set forth.

Reference was made by the Patent Office to the Johnson provisional Specification, and thereupon the Solicitor for Mr. Cohn amended the application upon the assumption that the Johnson Specification did describe a corset with bone pockets, stopped off in the

corset by inserting the disclaimer which appears in the first clause of the paragraph preceding the claim, in the words, "I am aware of and do not claim a woven corset with the pockets stopped and finished off at a uniform distance from the edge," and modified the claim so as to include only a woven corset when made with the bone pockets, "varying in length relatively to each other as desired, substantially in the manner and for the purpose set forth."

The only ground for making this disclaimer was the supposed description in the Johnson Specification of a woven Corset with the pockets stopped off at a uniform distance from the edge. There is not the slightest evidence in the case from any other source that bone pockets were ever stopped off by the loom so as to save the cost and trouble of hand fanning, with the exception of the testimony bearing upon the defences of prior knowledge of the Cohn invention by the Convex Weaving Company and by John Graham, and which is fully answered. The conclusion as to the meaning of the Johnson Specification was a too hasty one. *It doee not describe a corset in which the bone pockets were stopped at all*, as I confidently hope to show.

Extract from the Johnson Specification.

"This invention relates to the manufacture of what are known as woven corsets, and consists in the employment of the (two Jacquards in the loom, one of which effects the shape or contour of the Corset, and the other the formation of the double portions of slits for the introduction of the whalebones."

As before stated, and as appears from the expert testimony upon both sides two jacquards in combination with a loom for weaving certain kinds of figured fabrics was well known to the Art at the date of the Geresme invention A loom of this character is described in the *Mechanics' Magazine* before referred to — and an illustrated plate showing two Jacquards is found in *Gil-*

is mounted for weaving lace goods by the use of two jacquards,—one of which is the main Jacquard and the other an auxiliary—is described by *Zorn.* Rec. p. 65.

It does not appear from any thing in the Record that any one preceded *Geresme* in the application of the jacquard mechanism to looms for weaving convex goods.

It is proper and reasonable to suppose that *Geresme* proposed to employ one main Jacquard, and one auxiliary Jacquard. The first or main Jacquard was to be provided with mails or eyes through which the warp threads passed, so that for the formation of the irregular shaped web, each warp thread should, if required, be under the control of the Jacquard, As a matter of fact it would not be at all necessary to have a separate cord and mail for each warp thread, but on the contrary, the loom could be harnessed to make a fabric suitable in shape for a woven corset with each needle of the Jacquard connected, with say, four different warp threads constituting a system of "repeats," as it is technically termed. This well known method of harnessing a jacquard loom for weaving figured goods, is correctly described in *McIntyre's* testimony, (Rec. page 50) and illustrated by the diagram. *Compls. Ex. McIntyre*, No. 1.

The second or auxiliary jacquard was intended as the Johnson specification states to form the "*double portions* of slots for the introduction of the whalebones." This second jacquard undoubtedly operated shafts or common loom harnesses and controlled when in operation those of the warp threads which were to be manipulated to form— not a tubular fabric—but only the "*double* portions" or upper flaps which when united with the fabric underneath the same, woven by the main jacquard, made with such fabric, woven tubes.

I will endeavor to make my understanding of the

operation of these two jacquards which *Geresme* proposed to use in weaving a corset more clear by supposing that the kind of fabric to be woven is a piece of cloth of the proper shape of a corset-blank as it comes from a loom, but *without* any tubular or double portions for the reception of bones. It is perfectly easy to understand that the main jacquard having the several sections of warp under its control would weave the cloth with the necessary gussets and gores in obedience to the design punched in the cards.

I will next suppose that a corset blank is to be woven,—that is to say a fabric having sixteen or more tubular slots for whalebones: the slots or double fabrics being separated by intervening portions of single fabric. The fabric is commenced by the weaving of a strip, say one inch in width of single stuff. The main jacquard does all this, and the auxiliary jacquard is idle during this time. Now a section of double fabric is to be woven. The whole number of warp threads we will suppose to be 2000, and all these have entered into the weaving of the first inch in width of single stuff. The auxiliary jacquard operates harness shafts which are capable of working 1000 warp threads, or every alternate one in the whole series—or the shafts may operate any less number of warp threads, as for example 750, in case the double fabric is not to be equal in length to the width of the line of warps. These 1000 warp threads so operated by the second jacquard or shaft machine, are divided into a shed of, for example, 500 threads each. The main jacquard is now passive and the weft is carried through the shed above mentioned. The shed is next sprung upon the filling thread thereby opening a second shed formed out of the same warp threads and the shuttle returns with a second filling thread. An examination of the fabric at this stage will show what may be called a rudimentary flap, having a width equal to the two picks of filling. The second jac-

commences to act, but the cards are so punched that it does not work any of the warp threads which have been, and are to be involved in the making of the flap of double stuff. Two warp threads are now inserted in the shed controlled by the main jacquard and which by that much increases the length of the corset blank —using the term "corset blank" in contradistinction to the double or flap portions which will finally be joined to the blank and make tubes for the insertion of bones. The main jacquard now becomes passive and the second jacquard commencing to act, two more picks of filling are woven into the flap. And so first one and then the other jacquard comes into operation in alternation until the flap of double stuff has been woven of suitable width for a whalebone. The next operation of the loom is to join the edge of the flap so woven to the main or underlying fabric, and this is accomplished by the main jacquard which now springs the whole 2000 warps and thereby after the next filling thread has been woven in, that which was just before a flap, becomes the upper or face half of a tube.

The weaving of the main body of the fabric and the proper shaping of it to fit the human form now proceeds through the instrumentality of the main jacquard until the place is reached where a second slot for a bone is to be formed when the above described operations are repeated.

All that is above described was known to the art of weaving figured fabrics at the date of *Geresme's* invention and in the absence of any statement in the Johnson specification to the contrary, or suggestion of any other method of employing two jacquards it is to be presumed that he intended to use two jacquards under a mode of operation the same as that known to the art, and that his invention in this respect consisted in applying such organization of double jacquards to the weaving of corsets to fit the form and having slots for bones as distinguished from figured fabrics not of

irregular form and not partly single and partly double stuff.

Extract from the Johnson Specification.

"These slots or double portions are made simultaneously with the single parts of the corset and in place of being terminated in a point, they are finished square off and at any required length in the corsets instead of always running the entire length as is usually the case in woven corsets."

The statement that the double portions (of slots) are made *simultaneously* with the single parts of the corsets cannot be made intelligible upon any other interpretation of the method proposed for using two jacquards than that above given. It is impossible to suppose that the words are to be taken as literally true. The great majority of the single parts of the corset consists of fabric located between the double portions, and yet, when Johnson formed *Geresmer's* provisional specification, he could not have referred to those parts of the corset as the "single parts" named in the extract printed in the margin, for it is of course a mechanical impossibility to weave the double fabric bone passages *simultaneously* with single parts of the corset *afterwards* to be made. The difficulty clears away if we understand that by "single parts" he means the under halves of the bone passages. For the fabric, which is a part of the main body of the corset and does also compose the back sides, or portions of the bone passages which are seen when we look at the back side of the corset fabric, is as above explained woven—not exactly simultaneously—but pick by pick, as the overlaying strip of fabric to make the tubular bone passage is woven. It must be remembered that in hand-made corsets, the narrow strips of cloth which comprise the upper or face sides of the bone passages are stitched on to the surface of a piece of cloth which is of single thickness and of the shape of a corset. Now *Geresme* proposed, instead of sewing on to a single thickness a strip of cloth to form a pas-

sage, to weave both the single fabric and the double portions or superimposed pieces for the bone passages contemporaneously, or nearly so, by the use of two jacquard mechanisms. Hence, the true reading of the very blind and awkwardly expressed passages printed in the margin is, "The strips of fabric which when over laid upon, and secured at their edges to the single fabric which makes the main body of the corset, compose passages for whalebones, are woven cotemporaneously with their fellow portions of the main fabric."

It was claimed for the defendants at the argument below, that the "*single parts*" referred to in the Johnson Specification are the parts which, according to their construction of the Johnson Specification, are next the upper edge of the corset, and in range with the lines of tubular passages. So indeed, they may be, provided the superim posed woven strips do not extend the whole length of the corset, but stop short of the top edge, but for the same reason that it could be said that such parts of the corset were woven simultaneously with the pocket strips, would it be true that the connecting and continuous portions of the same fabric underneath the superimposed strips were woven simultaneously with such strips.

The Johnson (Geresme) Specification does not describe the bone passages stopped off at all.

Now the point of all the argument which I have made upon the meaning of the Johnson Specification is to show that from the necessity of the case the passages or slots for the whalebones were not, and could not be *stopped off* at all. The passages for the bones were simply tubes open at the ends, precisely the same as the corresponding tubes in a sewn corset made from cloth are open at the ends until the bones have been inserted and the end of the bone passages fanned. If Geresme made use of two jacquards—one main, and one auxiliary one—the former to make the whole

of the corset blank with the exception of the "*double portions* of slots for the introduction of whalebones," and the latter to make such separate extra thickness of stuff comprising the "*double portions*" then the article resulting was a fabric shaped like a corset, and with some portions woven with two thicknesses to make "slots" without having these passages stopped off at the right places for the bones by the process of weaving, nor in fact, stopped off any where.

But, it will be said, that this view is at variance with the statement in the Johnson Specification that these slots or double portions "in place of being terminated in a point are finished square off." To which I reply, *finishing* a tubular passage square off is a very different thing from *stopping* such passage off. The terms used only convey the idea that the bone passages were not to have converging sides and terminate in a point near the middle line of the corset, as shown in Exhibit *Barnes*, (Viola corset,) but were to have parallel sides and run any required length and be finished square off with a selvedge edge. There is no hint that these tubular passages were to be formed into pockets by being stopped off. The "Viola" corset was not an instance of bone pockets stopped off in the weaving to save the expense of fanning. All such corsets were required to be fanned by hand. No publication, or patent, is put in evidence relating to the art of weaving, from which it can be gathered that a corset was known in 1854 having the location of the ends of the bones determined by the jacquard. No weaver or man of expert knowledge has said that a corset so made was known at that day.

The argument upon the other side is that corsets like Exhibit Barnes having their bone pockets terminated at their bottoms in points near the centre line of the corset was known: that hand-made corsets with pockets running the whole length of the corset and stopped off by fanning at variable distances from the edge were known, and that the language used in

the Johnson specification added to what was known as above stated is sufficient to instruct a jacquard weaver to turn the bone passages into pockets terminating at variable distances from the top edge of the corset by the operation of weaving.

No intendment is to be made in favor of the Jonhson specification not necessarily required by its terms. The statement that an overlying strip of double fabric is finished off square at the end does not tend to imply that its end is joined down by weaving to the thickness of fabric underneath, like the closed end of a bag. I do not deny that a clear statement in the Johnson specification that the end of the bone passages were closed at the desired places by weaving would be sufficient to anticipate the Cohn patent for a similar article, and I do not claim that it is necessary that the Johnson specification should point out how the loom was harnessed to enable this result to be effected, but I do insist that the Cohn patent should not be defeated upon anything short of a clear description of the same article, especially when it will be evident upon reflection that if Johnson used two jacquards substantially as they are described in the Mechanic's Magazine, and employed, as he says he does, one jacquard to effect the shape or contour of the corset, and the other the formation of the *double portions* of slots (not the whole tube) it would be next to impossible to practically stop off the passages by weaving, for the reason that both jacquards would have to be in operation at the same time to effect such stopping off.

Neither ought the Cohn patent to be defeated by any conjecture that Geresme might have made a corset

Extract from the Johnson Specification.

"When the corset is taken from the loom the whalebones are inserted into these cases and the borders are formed thus completing the article, which contains all the elegance and graceful contour of sewn corsets made by manual labor."

like that described in the Cohn patent which conjecture is founded only upon the loose and general and indefinite statement printed in the margin.

There is nothing inconsistent in the extract quoted, with the idea that Geresme stopped off the passages by fanning. True it is not said that the bones are so stopped, but what is of more consequence in this case, *it is not said that the labor and expense of fanning is saved* as it would naturally have been were it the fact. Again he speaks of the receptacles for the bones as *cases*. He does not call them *pockets* for the reason that they are not such, until after the bones have been inserted and the ends closed at the right places for fixing the heights of the several bones. No inference favorable for the defendant's interpretation of this paper can be drawn from the omission to say that the operation of fanning was to be performed. The paper omits to say that the corsets are eyeletted for lacings, or furnished with fastening clasps or that they are starched or that they are shaped and ironed while stretched on a metal form. Until these operations are performed the article is not completed. It is easy to understand why in this hastily drawn and purposely inexact and indefinite paper there should have been omitted the enumeration of the several hand operations necessary to be performed to complete the article. The invention disclosed consisted in employing two jacquard mechanisms for fashioning a corset and making the double portions of the fabric where the bones were to be inserted. I will assume that he designed to make the double portions of any required length, so as to enable the article to better

bust of the wearer as had previously been done in hand made or sewn corsets. Granting all this, the paper does not suggest much less disclose that the cases for the bones were stopped off by weaving.

I am aware that the issue upon this Johnson specification is framed differently in the Record and was presented in argument under another aspect of this paper at the hearing before the Circuit. The real question is whether the Johnson specification describes the Cohn corset, and as the specification is a written paper and there is no difference of opinion as to what was known in the art of corset weaving at the date of the Johnson specification, it becomes immaterial what view of the specification was taken below. That totally different views may be taken and find more or less support from the ill-considered language of the paper illustrates its insufficiency to defeat the Cohn patent.

The late Mr. Keller, whose wide range of mechanical knowledge, acuteness of perception, fertility of illustration and extent of professional acquirements have so often delighted the ear of this Court, conducted this case before the Circuit Court. He made the issue that the Johnson specification did not relate to an improvement in corsets as a manufacture, but to the weaving of corsets in a loom with two jacquards. He claimed that the specification was incapable of clear interpretation; that possibly it was contemplated to use one of the jacquards for giving the contour of the upper and lower edges by stopping the pockets which would indicate the configuration of the edges and enable the operative to cut the shape by these indications instead of using a pattern: that this interpretation would cause all the pockets to come up to the edge or stop short of it by a uniform distance and that this was the way in which the Patent Office construed the Johnson specification as evidenced by the disclaimer and the claim.

Upon this theory the bone passages would require

to be stopped off by fanning to determine the proper location of the bones, notwithstanding that in fact the extreme ends of the pockets might be closed by the weaving. Mr. Keller also contended from the fact of Geresme filing his first provisional specification in 1853, and repeating it again in 1854 and never filing in the British Patent Office any complete specification (*McIntyre* p. 57) that the inventor found his plan impracticable and abandoned it, especially as it did not appear from the research made by the defendants that any corset had ever been known in England or France corresponding with any of the different interpretations of the provisional paper. On the part of the plaintiff, testimony was given by the expert *McIntyre* (Rec. page 52) and by experienced weavers, (*Zorn* p. 33, *Kunkler* p. 57, *Mengel* p. 60) to the effect that corsets with bone pockets stopped off in the weaving as described in the Cohn patent, could not be practically woven in a loom having two sets of jacquard mechanisms, and the reason given in substance by each of the witnesses is that as all the warp threads enter into the formation of the pockets and into the weaving of the cloth intervening between the pockets: if the pockets be stopped off in the weaving, the connection of the warps with the jacquard that determines the pocket must be broken and the connection of the warps established with the jacquard that determines the contour and *vice versa*, and that two jacquard machines connected with the same warp threads would work at cross purposes and produce so great confusion and entanglement of the cords as to destroy the value of the machine. In reply to this evidence the defendants did invent a loom with two jacquards, and by the aid of a man to change the jacquards they succeeded in the feat of weaving *four* corsets in *five* hours time, (*Hilp man* p. 62 int. 7, 8.) and these were so full of defects incident to the difficulties above suggested, that they are absolutely unsalable and worthless. (*Langlotz*

Concede that it would be possible as a feat to weave a corset with the passages for the whalebones stopped off in the weaving as described in the Cohn patent by the employment of two jacquards, and that the defendant's weavers, with their present knowledge of the art of weaving corsets with the bone pockets stopped off, involving as the operation does the division of the sections of warp at the exact places where the pockets are to be stopped off, as fully explained by *McIntyre* in his testimony on page 50, illustrated by the diagram "Exhibit *McIntyre*."

I quote a single passage from his very clear explanation:

> "Now in order to stop off a pocket within the space or width occupied by these 48 threads (or in the midst of this one warp,) it would, of course, be necessary to so lift or manipulate the warp threads as to weave double or to weave two thicknesses of cloth at that part of said warp where the pocket existed, and at the same time weave single or one thickness cloth by a different manipulation of the warp threads beyond the end of the pocket, which would be simply impossible because the lifting of those threads of this warp in a certain manner to weave the pocket or double portion, would inevitably necessitate precisely the same sort of lifting of the balance of the threads of this warp at the same time since each series of 12 threads is operated upon by the self same 12 needles."—

Concede this feat, I repeat. It still remains to be ascertained from the Johnson Specification that any such corset is described. It adds nothing to the clearness of the description to show that with the same machinery which Geresme employed something can now be done which is not declared to have been done. Cohn does not claim to have invented any new machinery, but he claims to have produced a

it be distinctly stated in the Johnson Specification that Geresme did effect the saving of the cost of fanning the pockets by stopping off the pockets in the process of weaving, how can it be inferred that he must have done what he does not say he did, because a weaver—after Cohn has adapted looms to accomplish this new manufacture,—can see how Johnson's double jacquard loom could be made with the aid of a man to shift jacquards, to weave four corsets in five hours.

Now, notwithstanding the fact that the defendants did succeed in weaving some imperfect and unsaleable corsets with the pockets stopped off at variable distances from the edge, it is not disputed by any expert weaver called by the defendants that all the difficulties which are stated by the appellant's weavers exist to such a degree as to render the use of two jacquards for making such a corset as the patent of Cohn discribes a practical impossibility. The testimony on this part of the case for the appellant was substantially the truth.

There is one circumstance which embarassed the case exceedingly and tended to induce the raising of what I feel bound to say was a false issue. The expert who was examined on the part of Mr. Cohn acted as the solicitor of the patent. He was induced I think to yield to a hasty interpretation of the Johnson specification and insert the disclaimer which is founded upon the idea that the pockets in the Johnson corset were stopped off at a uniform distance from the edge of the corset. The Cohn patent is unreasonably restricted, though in this case it is of less consequence, for the defendants make the precise article as qualified by the limitation of the Cohn claim. But this idea when once engrafted on the patent gave a character to the Johnson specification which it did not possess. So soon as it is understood that Johnson used two jacquards for weaving a corset in substantially the same way in which such two machines are described

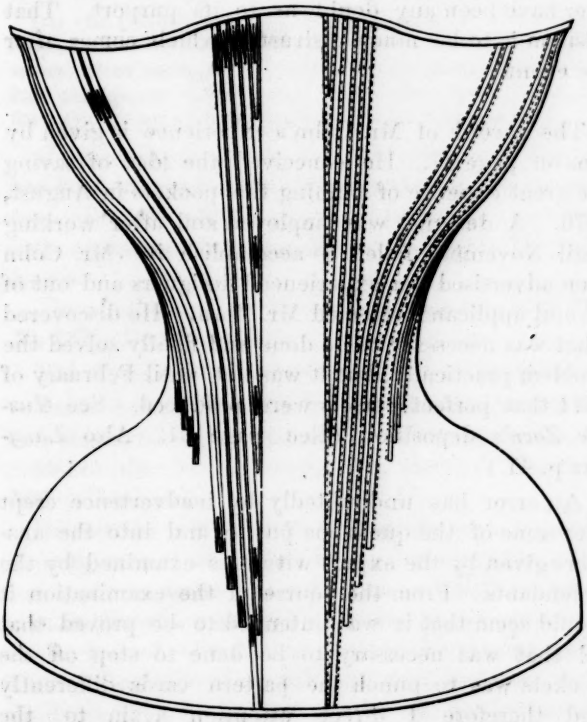
as used for weaving figured goods in *Rooke's* improvement in the jacquard published in the *Mechanics Magazine* for 1836 (*Eliot* p. 137,138) and so soon as it is under stood that all that the second jacquard had to do was to manipulate those warp threads only, which enter into the formation of the "*double portions* of slots for the introduction of the whale bones"—that is the upper strips of fabric composing the face sides of the bone pockets— all difficulty in the practical use of two jacquards disappears and with it the possibility of the bone passages having been woven otherwise than open-ended. The difficulties which the expert weavers who testified in behalf of Cohn,saw in the employment of two jacquards,all result from supposing the two machines to be in action at the same time,as they must be in case the pockets,the formation of which is under the control of one jacquard, are stopped off by the weaving of the single fabric under the control of the other jacquard. The error was in assuming that "finished square off" meant "stopped off." When we keep clearly in mind the manner in which Geresme must have woven his corset, if he applied to the weaving of convex fabrics of this kind the two jacquard mechanisms used at the date of his invention for weaving figured goods—and he is certainly not to be presumed to have employed any other system in the absence of any statement to that effect—certain expressions in the Johnson specfication which on a first reading might leave the impression in the mind that Geresme did stop off the bone pockets,convey a very different and entirely opposite meaning. Thus the passage "in place of being terminated in a point they are finished square off" is not only consistent with, but plainly implies the idea that the bone passages were not to be *terminated* in the sense of being closed at all. Otherwise the words would have been "in place of being terminated in a point they are terminated with square ends." As the lan-

in opposition to "terminated in a point." If a tailor is told to "finish square off" the legs of a pair of pantaloons,he does not understand that he is to make the legs into bags. The natural meaning of the words "finished square off" in the connection in which they stand in the Johnson specification is that the bone passages were neither to be terminated, nor were their sides to converge to a terminal point.

The accompanying cut exhibits to the eye a representation of the corset described in the Johnson (Geresme) provisional specification as I interpret that publication. According to my supposition, the main or principal jacquard controls the formation of the entire corset fabric, with the exception of the overlying strips of cloth forming the face halves of the cases for the whalebones. The second jacquard controls the formation of these double portions, and the two jacquards are never in operation at the same time.

Consequently the cases are necessarily left open at both ends whether they extend the entire length of the corset or stop short of it, and require to be stopped off by fanning in the same manner as hand made corsets. The supposition reconciles all the statements in the Johnson specification, and does not involve the antagonism which would ensue between the two jacquards in case the pockets were *stopped*

off by the necessary action of both jacquards, instead of being *finished off* as the specification says they were.



I trust that this Court will not be led to imagine that it was a trifling thing for the appellant to harness a loom in a way which would enable him to produce corsets with the bone pockets stopped off at the right places by weaving. It required well nigh one whole year of experiment and effort with the aid of the best expert designer that could be procured before Mr. Cohn's idea could be successfully realized. It is very easy now for the defendants who have copied the system introduced by Cohn, to say that the knowledge how the thing was to be done existed in the art. An obscure passage in one of the ancient

has discovered and brought to the light its hidden meaning, and flippant students wonder that there could ever have been any doubt as to its purport. That wisdom is to be much distrusted which comes after the event.

The record of Mr. Cohn's experience is given by him on page 47. He conceived the idea of saving the great expense of fanning the pockets in August, 1870. A designer was employed and after working until November failed to accomplish it. Mr. Cohn then advertised for experienced designers and out of several applicants selected Mr. Zorn. He discovered what was necessary to be done and finally solved the problem practically, but it was not until February of 1871 that perfect corsets were produced. See *Gustav Zorn's* deposition (Rec. page 31. Also *Langlotz* p. 41.)

An error has undoubtedly by inadvertence crept into some of the questions put to, and into the answers given by the expert witnesses examined by the defendants. From the course of the examination it would seem that it was intended to be proved that all that was necessary to be done to stop off the pockets was to punch the pattern cards differently and therefore I direct attention again to the diagram "Exhibit *McIntyre*" to illustrate the difficulty which had to be overcome to enable the bone-pockets to be stopped off at any desired place in the warp.

If all this was so easy of accomplishment from the known state of the art of weaving, it is remarkable that Mr. Cohn, an experienced jacquard weaver himself, should have had so much trouble and expense to find out a matter of common knowledge.

The other defences set up were found to be insufficient by the Circuit Court. As however the decree is a general one of dismissal it is possible that

evidence upon these points. In view of this possibility I am obliged to discuss them.

On the part of the appellant it will be contended, that, although substantially such corsets were made, none were sold or put on sale by him or with his knowledge or allowance, more than two years before the filing of his application for the patent.

If the evidence put in by defendants on this plea had been successful, the trial would have been a short one. But the efforts made to sustain it show how little confidence the defendants had in the other defenses.

The application for the Cohn patent was filed Jan. 30, 1873 (Record, p. 55).

The evidence put in on the part of defendants;

James Lyall. This person represented the defendants throughout the trial, and it will be seen from his evidence that his testimony was strongly tinctured with self-interest.

He testifies that his first connection with looms for weaving corsets was when he was employed to adapt and apply to Cohn's corset looms a positive shuttle motion, for which he held a patent; first to one loom at the end of October or first of November, 1870. That at that time Cohn had 26 looms, and that afterwards, in 1871, he applied his shuttle motion to the rest of them. That in the Fall of 1870 about sixteen of these looms were in operation, and all of them weaving corsets with the pockets stopped off in weaving, as in Figure 3 of the drawing of the patent. That all the looms that were running when he went there, in 1870, were weaving such corsets with pockets so stopped off in weaving. That he had several conversations with Cohn in 1870, in which he declared two or three times that he was selling all the corsets that he was making, and could sell ten times as many if he could get them out. Each loom was weaving about two dozen corsets per day; that he

3,000 dozen in the Fall of 1870. That the corsets so made were put up as is usual for sale—all ready for market—and that he saw them on sale when he went to the store. (Rec. p. 113.)

As this witness has made himself prominent by his testimony in every branch of the defense, it becomes important to point out the errors of his testimony.

He is loom m anufacturer, and the alleged inventor and patentee of a positive shuttle motion. In the Fall of 1870 Mr. Cohn was induced to adopt this man's shuttle motion. By contract it was at first tried on one of the looms, and finished in December, 1870, and the order for applying it to the other looms was not given until the end of February or March, 1871. Cohn has been paying royalty for the use of this shuttle motion, and, as early as Oct., 1872, gave Lyall the first notice of his intention to discontinue the use, and the second notice in the latter part of 1873. (Rec. p. 48.)

The loss of the royaity which he was receiving from plaintiff has not improved this witness' disposition towards the appellanr.

While applying his shuttle motion to Cohn's looms, he had free access to every part of the factory, and became familiar with the whoie business of weaving and manufacturing corsets and with that knowledge got up the infringing Company.

It is necessary to understand that there are two Companies—the United States Corset and the Positive Motion Loom Company—the same persons being stockholders in both Companies: James Lyall. the patentee of the Positive Shuttle Motion, being one of the Directors, and his brother, Wm. Lyall, being Treasurer. (Rec. p. 117.)

This digression was simply to point out the motives which may have influenced the witness.

He is contradicted by himself and by other witnesses.

In the first place he swore that in 1870 he was at

Cohn's store, and there saw corsets on sale with the pockets stopped off in weaving. (Ints. 21 to 27.) But, when cross-question 65, was put to him, thus: "You have stated that you saw some of these corsets manufactured at the establishment of Cohn & Co, with the pockets stopped off at various heights. on sale at the store of Cohn & Co.; state how you know they were on sale, and specificially when they were so on sale?" To which he answered: "If my memory serves me right I have not stated any such thing; I state that I visited Mr. Cohn's store and saw corsets on sale."

No one can read this witness's answer to direct interrogatories 10 to 18, and 31 to 27, and then his answer to cross 65, without coming to the conclusion that, in chief, he intended to lead the Court to the belief that in the Fall of 1870 he saw at Cohn's store on sale corsets such as claimed in the patent, and that on cross-examination his courage failed him.

It is clearly proved by the appellant that no such corsets were sold or put on sale until after the first of February, 1871. (Rec. p. 47, int. 5). And *Samuel Galland*, a partner of Cohn's, testifies that during the years 1870 and 1871 he had charge of the whole office business; that all the corsets manufactured were sent down to the store and put in the basement and sub-cellar; that the sales were made by samples in the office, and that prior to February, 1871. all such samples had the pockets stopped off by sewing (Rec. p. 43, int. 12).

Again, Lyall swore that in the Fall of 1870 Cohn had twenty-six looms, of which about sixteen were in operation, and all of them weaving corsets with the pockets stopped off in weaving, as represented by Figure 3 of the drawings of the patent (Rec. p. 113).

Now, on the part of appellant it is clearly proved that at no time prior to February, 1871, were there more than six of the looms mounted to stop off the

pockets in weaving, and they did not stop the pockets in the right places, and that it was not until some time after Gustav Zorn, the designer, came there, on the 20th of January, 1871, that a design was made and a loom mounted to do the work properly.

This is proved by:

M. Cohn, plaintiff (Rec. p. 47).

Gustav Zorn (Rec. p. 31, Ints. 5, 6).

Louis Langletz (Rec. p. 41).

And why none were put on sale prior to February, 1871, is stated by these witnesses to be for the reason that the pockets were not stopped off in the right places, and that the looms were not mounted to do the work successfully until after Zorn came there, on the 20th of January, 1871. The whole collection of corsets in which the pockets were imperfectly stopped off by the five or six looms were sold in one lot to Clafflin in February or March, 1871.

Fitzpatrick, who was salesman for Cohn until after February, 1871, could prove but one sale of corsets prior to February, 1871, and could not say whether they had pockets stopped off by weaving or sewing. *Samuel Galland* furnished defendants' counsel with a list of all persons and firms to whom corsets were sold prior to February, 1871, so that defendants were thus furnished with abundant means to find evidence of any sale of such corsets prior to February, 1871. (Rec. p. 49).

The defence of prior use by the Convex Weaving Company is a failure.

This is the Company that first started the corset looms. The Company failed, and the looms, machinery, fixtures, &c., were all sold at a receiver's sale and bought by plaintiff on the 27th of December. 1869.

Several witnesses were called on the part of defendants, and testified that corsets were woven at the rooms of this Company with the pockets stopped off

In the first place he swore that no corsets stopped off

in the act of weaving, and at unequal distances from the upper edge.

George Jens-Gregerson testifies that he was foreman of the laundry of the Convex Weaving Co. That in the Fall of 1868 corsets were there woven with pockets stopped off in weaving. Can't tell how many such were woven—*were running only one loom.* That he went there in July. 1868; left 8th February, 1869. Was absent six weeks, and when he returned, *no more* such were being made.

Teile H. Müller.—This witness is a machinist, and as such was employed by the Convex Weaving Co., to build the looms, &c., from 1866 to Spring of 1869, when he left, and afterwards only visited the establishment occasionally. He says that some of the corsets there woven had the pockets stopped off in weaving near the upper edge—some five or six looms so mounted. After he left he saw some of these corsets on sale in shop windows.

He says that all the machinery, looms, fixtures, &c., &c., of that Company were sold to Cohn, and he helped to put up the looms for Cohn, (folios 149 to 158).

On cross-examination he says that there *were at least five or six more sets of cards for weaving such corsets.* And in answer to ints 48-49, he shows that he must have judged that the pockets were stopped off in weaving, from external appearance, for he certainly could not tell from looking at them through a shop window. I pray attention to this, because I will show presently how defendants' witnesses were misled into the error of testifying to what is not true.

And as to the number of looms employed in weaving, what defendants' witnesses were made to testify were corsets with pockets stopped off in weaving. *Gregerson* testifies there was but one loom so employed, while *Muller* says that there were five or six or more. Both cannot be right. The testimony of these two witnesses as to the stopping off of the pock-

ets in weaving was attempted to be sustained by the testimony of five women who were employed by the Convex Weaving Company.

Kate Stone testifies that she was employed in the laundry putting the corsets on forms; that Gregerson was foreman in the laundry in the Fall of 1868. That corsets with the pockets stopped off in weaving were first so made there in the Fall of 1868. That during the time they were so made, about half were stopped off in weaving. But, on cross-examination, she admitted that there were so made during only about three months. When pressed as to how she could tell that about half were so made, she had to acknowledge she could not say how many, and that she did not know how many, and that it was no part of her duty to insert the bones in the pockets.

Hanna Messing. She was never engaged in inserting the whalebones in the pockets, or in doing anything which required her to know how the pockets were stopped off near the upper edge of the corsets. Her duties were at first to cut strips, then to unpack corsets that were returned, then in arranging the sizes.

Gussie Trucka.—She was imployed in cleaning the corsets when they came from the looms—that is, cutting off the projecting threads from the surface with scissors. From her cross-examination it will be seen that she really did not know whether the pockets were stopped off in weaving.

Katie Ryan.—She went there in 1867, and worked nearly two years; she worked at inserting the bones in the pockets. When asked how the pockets were stopped off near the upper ends, and to mention the different kinds, she answered: "They were stopped off by three cords running up to the top; stopped off square." And then when asked, "Whether stopped off by weaving or sewing," she answered, "Stopped off by weaving."

the corsets there made had the pockets stopped off in weaving; and, as that would clearly clash with the testimony of all the other witnesses, it became necessary to lead her back into the proper path; and then by a series of leading questions she was made to testify that some were stopped off in fanning. And she finally testified that some days there were as many as twenty dozen corsets per day made with pockets stopped off in weaving.

Mary Rehm testified that she worked there from 1867 till the Company stopped. Engaged in boning corsets.

This witness was asked, "What kind of corsets did you insert bones in; I mean what kind of bone pockets they had?" She answered, "Common corsets; *some were stopped off at the top, and some with bone all through.*"

This answer was so intelligent that it was found best to ask if she had heard the testimony of the previous witness, Katie Ryan, and whether her statements were correct, which she answered in the affirmative.

Such is the whole of the evidence on this point put in on the part of the defendants. The only intelligent witness is Muller, but he was not really in a condition to know, with any degree of accuracy, whether any of the corsets were stopped off in weaving, because he had nothing to do with the designing, cutting of cards, or weaving of corsets. He was the mechanical engineer of the Company.

Muller's duties in the Convex Weaving Company is clearly defined by *Charles Gahren.* They were to make drawings for new machinery, and experiment with it. He was sent to Paris on the 9th of Feb., 1867, returned middle of May, 1867; remained till the Fall of 1868, at which time he went to New York to set up a drafting office, and came back to the Works in the Fall of 1869. From the time he returned from Paris until he left in the Fall of 1868 he

ing and drying cotton for warps, which was given up as a failure; experimented in getting up a new kind of busts, which were afterwards broken up, and experimented in starching corsets, and prevent the discoloration of them by busting, that is, on forms resembling the female figure. This shows that he was not in a condition to know, and if Gahren's statement of what his duties were, had been incorrect, Muller could have been, but was not recalled, to contradict him.

There is a circumstance proved even by defendants' witnesses, which, independently of all other evidence, I submit is conclusive to show that corsets were never so made by the Convex Weaving Company. Whatever it was that was supposed by defendants' witnesses to be the stopping of the pockets near the upper edge by weaving, commenced in the Fall of 1868, and was given up and abandoned in a very short time. Gregerson, a very willing witness for defendants, says that it was in the Fall of 1868, and that six weeks after he came back, in February, 1869, they had stopped making such. Stopping the pockets by sewing, costs, for sixteen-bone corsets, from 30 to 33 cents per dozen, and for a hundred-bone corsets, $2.25 per dozen. To stop them off in weaving, after the looms have been properly mounted, it does *not cost anything*. In view of this, it is simply absurd to suppose that if the Convex Weaving Company had so woven corsets in the Fall of 1868, they would have abandoned it and gone back to the expense of doing it by sewing.

It was out of the question to suppose that all the witnesses called by defendants on this subject committed wilful perjury. Some one performed the wicked task of misleading them.

The evidence produced on the part of the appellant removes all doubt and clearly establishes, not only that nothing of the kind was done there, but indicates how defendants' witnesses were misled into the

In December, 1869, Cohn purchased all the looms, cards, etc., from the Convex Weaving Company. If corsets had there been so woven, the cards would have passed into his posession, even if the Company had stopped so making them. But it is in proof that no such cards came into Cohn's possession.

This is proved by—

M. Cohn (Plff's proofs, Int. 3, p. 47).

Louis Langlotz (Ints. 12 to 19, p 37).

John Baer (Ints. 10 to 17, pp. 16, 17).

Corsets never were made by the Convex Weaving Company, in which the Pockets were Stopped by Weaving.

This is proved on part of appellant, by—

John J. Mangold (Rec. p. 13), who was foreman of the weaving department (Ints. 2 to 13).

John Baer (Rec.p. 15), who was a weaver and the loom fixer up to the time Mangold left, and then became foreman of the weaving department, and continued as such until the Company stopped business (Ints. 2 to 9, 21 to 25–31).

Charles Gahren (Rec. p. 35), who was in the employ of the Convex Weaving Company from January, 1867, till the middle of April, 1869, and hence during all the time that defendants say such corsets were there woven. He had charge, as machinist, of all the machinery for weaving corsets, and had to keep the looms in order. He testifies that all the corsets there woven had pockets woven open from selvage to selvage (Ints. 2 to 7).

Anna Anthony (Rec. p. 26). She was in the employ of Convex Weaving Company from 1867 to 1869, two weeks before the Company stopped. She testifies that she was employed in boning, lacing, and most of the time in fanning. During all the time the pockets were open from top to bottom, and the first corset she ever saw with pockets stopped near the upper edge by weaving was at Cohn's (Ints.

Johanna Tienken (Rec, p. 27) was in the employ of the Convex Weaving Company from some time in 1868, and stopped in 1869; was at first employed in fanning and then in cording, and in cording could tell how the pockets were stopped off. She never saw a corset there that had pockets stopped off in weaving, and the first time she ever saw such a corset was at plaintiff's, in August or September, 1870 (Ints. 2 to 11).

Katie Berner (Rec. p. 29) was in the employ of the Convex Weaving Company from October, 1867, to 1869, when the Company stopped. She was employed in fanning and cording corsets, and if the pockets had been stopped in weaving she would have known it. The first corset so made, that she ever saw, was at Cohn's factory, and she was very much surprised (Ints. 2 to 15).

Julia Schilling (Rec. p. 23). She was in the employ of Convex Weaving Company from January, 1868, to May, 1869, in fanning; all the corsets she saw had pockets from selvage to selvage; never saw any there stopped off in weaving. The first she ever saw so made was at Cohn's factory. For 16-bone corsets paid 30 cents per dozen; and for 100, $2.25 (Ints. 2 to the end).

Mary Tienken (Rec. p. 24). She was at the Convex Weaving Company from March, 1868, till closed in 1869, employed at boning and fanning; the pockets were open at both ends; she was paid 30 and 33 cents per dozen for 16-bone, and $2 for fanning fine corsets that had been tacked before; the first corsets she ever saw of corsets with pockets stopped in weaving was at Cohn's (Ints. 2 to 16).

Emilia Heberlin (Rec. p. 35), in employ of Convex Weaving Company from 1867 till the Company stopped. She says that her business was cutting the cloth along both edges to shape the corsets; the pockets were open all the way through; she never saw a corset there with the pocket stopped in weav-

ing, and if there had been she would have known it (Ints. 1 to 5).

Letitia Halliday (Rec. p. 21). The testimony of this witness is most conclusive, not only on account of her intelligence, but because her duties were such that she must have known if the pockets were stopped in weaving. She went to the Convex Weaving Company in June, 1868, and continued to the end. She was the forewoman, and had to examine all the corsets; sometimes, from defective weaving, threads would run through from one cloth to the other, to impede the passage of bones; the corsets came to her in packages of a dozen, with tickets having the weaver's name and number of the loom, and when she found such defect she had to report the fact that the loom might be fixed, so as not to repeat the defect; if any corsets had been made there with the pockets stopped off in weaving she could not have failed to know it (Ints. 1 to 11).

We might safely rest on this evidence as conclusive to show that there must be some mistake in the testimony of defendant's witnesses, but it is always more satisfactory if it can be shown how the witnesses have been led into error.

This is found in the testimony of *Mangold*, *Baer*, and of *Gahren*.

The Witnesses have been Misled by Confounding some Ornamental Weaving with Stopping Off.

Mangold says that before he left the Convex Weaving Company some experiments were made to produce something on the outer surface of the pockets, such as represented on Exhibit 3, but in doing this the pockets were not stopped in weaving (Rec. p. 14, Ints. 11–25).

John Baer says that experiments were made to imitate fanning on the surface by the jacquard, but this did not go through, and the pockets had to be stopped off by sewing, and was given up because it

And *Charles Gahren* testifies that while Mangold was there as foreman some corsets were woven with a diamond-like figure on the upper part of the face of the whalebone pockets, but did not stop off the pockets (Rec. p. 36, Int. 6).

This removes all possible doubt. Some of defendants' witnesses remembered that for a short time some corsets were woven at the Convex Weaing Company's works with something at the place where the pockets had been stopped by sewing, and some over-zealous person, in the interest of the defendants, induced them to remember that this was for stopping off the pockets.

Gregerson and Saatweber, both of whom had been in the employ of Cohn and afterwards went into the employ of defendants, tried to get John Baer to testify to the same effect, for defendants, and having failed, they and Lyall then tried to break the force of his testimony by pretending that at first he had told Gregerson and Saatweber that corsets were woven at the Convex Weaving Co.'s with the pockets stopped off in weaving, and that he had woven such himself before plaintiff, and that plaintiff had no right to a patent for it.

I will here quote the cross examination of Baer.

"35+Q. What were the right places that you refer to in your last answer?

A. At the places desired.

36+Q. Did you not tell, within three or four months, Mr. Saatweber that while you were at work for the Convex Weaving Company you stopped off pockets of corsets in the weaving at different heights?

A. No. We never stopped off the whalebone in the Convex Weaving Company. I told him we had experimented in making other figures on the pockets.

37+Q. Did you not, at another time, and within three or four months, tell Mr. Saatweber, in company with Mr. Lyall, at your store in Ninth avenue, that while you were at work for the Convex Weaving Company you stopped off pockets of corsets in the weaving, at different heights?

A. No; not the way I made them for Mr. Cohn. Just the same as I said to Mr. Saatweber. I did not know Mr. Lyall four months ago; he was at my store five or six weeks ago, about.

that while you were in the employ of the Convex Weaving Company you stopped off the pockets of corsets at different heights, and that you changed the loom and produced this effect before Mr. Cohn knew anything about it, and that Mr Cohn had no right to a patent for it?

A. No. It isall a humbug. They never talked to me about a patent.

39+Q. Did you not tell, within three or four months, Mr. Gregerson that while you were at work for the Convex Weaving Company, you stopped off pockets of corsets in the weaving, at different heights?

A. No. Mr. Saatweber and Mr. Gregerson were at my store, and asked me what I would do if it should come to a suit and I should be called. Saatweber told me that Mr. Muller, and all the girls from Melrose, had said that the pockets were made so; and I said in reply, one and all had told what was not true."

Afterwards, in January, 1874, James Lyall was examined, and testified that about November he and Saatweber visited Baer at his store; that he (Lyall) showed him a copy of Cohn's patent, which he examined; that Baer then said that Cohn was not entitled to that patent, for he had woven them with stops in the same manner as in the patent, in the Convex Weaving Company's factory some four or five years ago, and that he had put in the stops in the pockets in Cohn's factory before Cohn knew that it was done. That about a month after, he went to Baer's with Gregerson. He there found Cohn's engineer. We had a general conversation on the English patents, but nothing more at that time. Saatweber first testifies to a conversation he had with Baer in May or June, at the request of Lyall, in which he says, "Mr. Baer told me that they had woven them stops in Morrisania, in the Convex Weaving Company, already, before Mr. Cohn did know anything about it. Nobody else was present except Mr. Baer and myself at this time." Then he testifies to the visit he made with Lyall, thus: "The second time I seen Mr. Baer in company with Mr. Lyall * * * * * * we had about the same conversation. Mr. Baer said about the same thing over again what he said the first time when I spoke to him the first time about this stopping off the pock-

The account of this interview with Baer as given by these two witnesses do not agree, for Saatweber does not say that the Cohn patent was shown to Baer, nor that Baer said "that he had put those stops in the pockets in the corsets at Mr. Cohn's factory, before Mr. Cohn knew that it was done." The testimony of Gregerson on this subject is a confused jumble, the substance of which is that he visited Baer three times; that, at the first interview Baer said that Cohn "had no right to the patent, because we made them stops in Morrisania." The second interview he relates thus: "The next time * * * I told him I was talking with Mr. Müller between times, and he said just the same, that the corsets was stopped off in Morrisania, by weaving, at different times, and then Mr. Baer, he said to me, that the corset wasn't stopped off in Morrisania; he turned right around what he had said to me before." And as to their interview he says: "A few days afterward I was up with Mr. Lyall in his house; we had only a conversation over the English patent."

In this third interview Gregerson does not corroborate Lyall's statement that they found Cohn's engineer there. The pretense that they went there to talk to Baer about what they call the English patent (Johnson provisional protection) was a mere excuse.

It is very evident that there was much effort on the part of defendants to get Baer to testify that corsets were made by the Convex Weaving Co. with the pockets stopped off in weaving; but if it were true, as these witnesse pretend, that at first Baer told them that corsets with the pockets stopped off in weaving, as in plaintiff's patent, were made by the Convex Weaving Co., there would have been no necessity for repeating the visits of inquiry by these three witnesses on three or four different occasions. That circumstance alone would throw serious doubt on the truthfulness of their testimony.

Some light is thrown upon the subject by Baer's answer to question 4, page 108, in which he was asked whether he told Lyall, at his first interview, or to Saatweber in Lyall's presence, that corsets had been woven in Morrisania in which the pockets were stopped off *near the upper edge*, in weaving?

He answered, "No, sir; I said we had made 100 bones" (corsets) "but not that."

When I pass to the consideration of what was done by John Graham, which constitutes another ground of defence, it will be seen that at the swells for the breasts and hips, the hundred bone corsets are formed with short tapering pockets, extending, for the breast, from the upper edge toward the middle, and for the hips, from the lower edge toward the middle, and that these pockets of necessity *must be tapering from each edge of the corset toward the middle.*

This reference by Baer to the making of hundred bone corsets by the Convex Weaving Company was enough to induce Lyall to press Baer into defendants' service, and failing, then to get up some confusion by which to cast doubt upon his testimony if called by plaintiff.

Baer is not in the employ of plaintiff, but carries on business on his own account. His testimony is corroborated by several other witnesses, and by the circumstances that if such corsets had been made by the Convex Weaving Company it would have been continued.

The attempt to contradict him is by Lyall, who is not only pecuniarily deeply interested in the issue, but who is virtually the author of the infringement, after learning the business of manufacturing corsets in plaintiff's establishment, while there under pay, in applying his positive shuttle motion to plaintiff's looms; and by Gregerson and Saatweber, both in the employ of defendants, and the willing servants of Lyall.

to overcome the frank and honest testimony of Baer, is best proved by the cross-examination of Gregerson and Saatweber, and the final testimony of Baer.

Cross-Examination of GREGERSON:

"×Q. 8 What was your object in making the several visits to Mr. Baer, to which you have testified?

"A. My object was to find out what he would say about it.

"×Q. 9. What interest was that to you, what he would say?

"A. I think that is my business, not other people's business whether that is my interest or not my interest.

"×Q. 10. Do you refuse to answer the last question?

"A. I have answered what I can answer; I don't think I can tell what I talk with other men."

And *Saatweber* was asked, Cross-question 11:

"At any of the interviews which you had with Baer, did you make any motions with your fingers indicative of the passage of money if he would go and testify for defendants in this suit?" To this he answered: "I will leave this question fo Mr. Baer; as much as I can find out from the question, that Mr. Keller means that I had offered some money to Mr. Baer."

As the witness did not dare to deny the pantomimic offer of a bribe, the answer was satisfactory but defendants' counsel then asked him:

"R. D. Q. 12. Please state whether you did, or did not, make any such motions or indications as are spoken of in the 11th cross-question?"

To which he answered: "That is hard for me to remember, what I have done with my fingers through the whole conversation I had with Mr. Baer; but I am sure I didn't offer any money to Mr. Baer."

This evasion of the question was more conclusive against the witness than his answer to cross-question 11.

Mr. Baer was then recalled, and when questioned as to Saatweber, said:

"Well, Saatweber, when he was at my place with Lyall, intimated to me, with his hand, as he went out of the door, that I should come down—I could earn money."

And, when questioned as to Gregerson, said:

"Well, Mr. Gregerson came up to my place and said Mr. Lyall sent him to request me to come down to his (Mr. Lyall's) factory, and I should never regret it; if I should say that was so made in the Convex Weaving Company, he (Gregerson) knew that a few hun-

It would be difficult to make out a charge of offer of bribe more distinctly than this; the party to whom the offer was made swearing directly, and the parties making the offer not daring to deny it.

In the face of all this evidence it is hardly possible that defendants' counsel can seriously argue that it is proved affirmatively on the part of defendants that such corsets were made by the Convex Weaving Company, and that the evidence on the part of Mr. Cohn was only negative.

The patented corsets were not made by, or with the knowledge of John Graham prior to plaintiff's invention.

In support of this plea, two witnesses were called by defendants:

John Graham who testified that he had been for upward of thirty years a weaver of small wares, including corsets woven on treddle looms, and that he first wove corsets with pockets upon jacquard looms in the fall of 1867.

The substance of his testimony was that, as early as 1867, in the City of New York, he had woven corsets, in both treddle and jacquard looms, with the pockets stopped off in weaving, and stopped off at different points according to the shape of the corsets, and ran from five to seven different lengths.

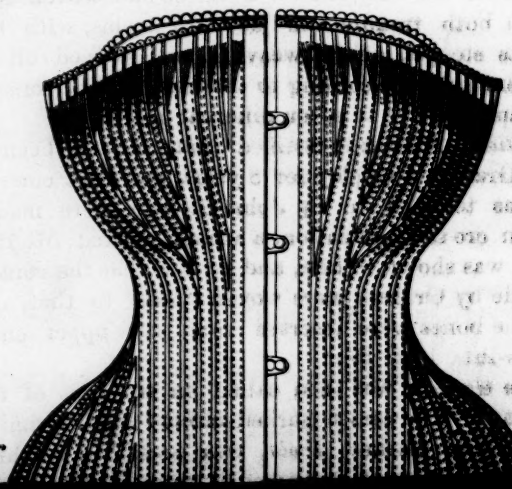
William Raulston testified that he had been in John Graham's employ for 8 years, and that corsets, such as testified to by John Graham, were made; but, on cross-examination, a corset marked *No.* 153, *Viola*, was shown to him, and he said that the corsets so made by Graham were woven similar to that, and that the bones were inserted from the upper ends. (Cross-Ints. 14 & 15.)

John Graham was then called on the part of the appellant. The corset marked *Exhibit Barnes*, similar to the one marked *Viola*, was presented to him, and he drew ink lines marked B to indicate what he

meant in his testimony as the stopping off the bone pockets at different distances from the upper edge of the corset, and says that the opposite ends of the pockets were closed by sewing.

This shows that John Graham never made corsets like the corset described in plaintiff's patent. What he made were the hundred bones corsets, in which the short pockets on the swells for the hips extended from the lower edge of the corset towards the middle, but not extending half way up—and why? Because these pockets form part of the swells for the hips, and the swells cannot extend to the middle or waist; and by reason of forming part of the swells these pockets have to be made wedge-shaped instead of with parallel sides. The upper ends of some of these small pockets extend nearer to the waist than others, and hence may be said to be stopped at different distances from the upper edge of the corset, although this has no relation whatever to the form of the upper edge of the corset.

The annexed cut represents the "Viola," or hundred bone corset, made by Graham.



That this was not even suggested of the improvement claimed in plaintiff's patent is best proved by the fact that these very corsets were also made with long pockets for the reception of what are termed the body whalebones, and that these pockets, instead of being stopped near the upper edge of the corsets, by weaving, were there stopped by sewing.

In conclusion I submit that all the grounds of defence against the Cohn patent have failed and that the decree of the Circut Court ought to be reversed.

BENJ. F. THURSTON.
of Counsel for the appellant.

U. S. Supreme Court.

OCTOBER TERM, 1876.

No. 106.

MORITZ COHN.

APPELLANT,

vs.

THE UNITED STATES CORSET COMPANY, J. H. LANE and WILLIAM LYALL,

APPELLEES.

BRIEF FOR APPELLEES.

BY

GEORGE GIFFORD.

JERSEY CITY:
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United States Supreme Court.

OCTOBER TERM, 1876—No. 106.

MORITZ COHN,
Appellant,
vs.
THE UNITED STATES CORSET COMPANY,
J. H. LANE and WILLIAM LYALL,
Appellees.

STATEMENT.

The patent to Appellant purports to be for a manufactured article, although the invention claimed to have been made is only a slight change in the *construction* of that article.

NATURE OF THE ALLEGED INVENTION.

A corset of the same form, properties and functions, and consisting of the same parts and combination of parts as the one described in the patent of Appellant, is admitted to have been well known and in use. This being the case, it appears difficult to understand what invention there is about it authorizing a patent for the article as a new manufacture. The alleged invention and all that Appellant claimed to have made consist only of

some of the bone pockets being closed by different means from that by which those particular pockets had been previously closed, although *other* pockets in the same corsets had been closed by the same means; that is, the claim is for a corset with certain pockets closed *by weaving*, while certain *other* pockets in the same corset had been closed *by weaving;* that is, it consists of a means of doing, to *some* of the pockets of a corset, what had been done by the same means to *other* pockets of the same corset. The old corset and the corset containing the alleged improvement, as structures, are identically the same, and have the same functions. By wearing them the difference could not be detected. One would fit the person of the wearer as well as the other, and in all respects perform the same office and service.

DEFENSES.

Several defenses are set up in the answer. One is forfeiture by the patentee of all right to a patent, if he ever had any, by his having manufactured and sold the patented article more than two years prior to his application for a patent. Another is want of novelty. In support of the defense of want of novelty, two things are referred to in the answer. One is a prior manufacture, use and sale of the patented article by the Convex Weaving Company and their employees, and the other is a publication of an English specification of John Henry Johnson.

On the 19th of September, 1873, Appellant, to prove a *prima facie* case, examined himself and his expert.

Between the 17th of November and the 24th of December, 1873, Appellees took testimony tending to prove the prior manufacture and sale, by the Convex

Weaving Company, and the forfeiture, by the Appellant, of a right to a patent, if he ever had any, by his having sold the patented article more than two years prior to his application for a patent, and they also put in evidence the Johnson specification and proof of its publication [folio 226 of the record], and that the Johnson specification describes such a corset as is described in Appellant's patent. Between the 28th of December, 1873, and the 8th of January, 1874, Appellant took testimony tending to disprove the manufacture and sale, by the Convex Weaving Company, and the sale, by Appellant, of the patented corset more than two years prior to his application for a patent, and testimony to show that such a corset as is described by the Appellant could not be produced from the Johnson specification. This was denied by the Appellees, and the testimony subsequently taken was chiefly on that issue.

There is conflicting testimony respecting the prior use by the Convex Weaving Company, and also respecting the sale of the patented article by the Appellant more than two years prior to his application for a patent. But when the testimony is fairly understood, there will be found to be no conflicting testimony respecting the sufficiency of the Johnson specification to anticipate the patented invention, and it is believed that when it is ascertained what the evidence respecting that specification finally culminated in, and, when it is well understood, the Court will not deem it necessary to at all consider the the other items of defense or to look any further into the case. The Johnson specification will, therefore, be first presented in the order of the argument. But for a better understanding of its contents, the prior state of the art will first be referred to.

STATE OF THE ART, PRIOR EVEN TO JOHNSON'S SPECIFICATION, AND SHOWING THAT ALL APPELLANT DID WAS OBVIOUS, NOT REQUIRING INVENTION.

One of the defenses relied upon in this case, is the English specification of John Henry Johnson, of 1854, by which it is claimed that said specification, taken in connection with the then existing state of the art fully described and made known all that the Appellant pretends to have produced.

And I shall first submit, that in view of the prior state of the art, *neither Johnson nor the Appellant made a patentable invention.*

The corset described by Johnson and the corset described by Appellant, are the same, but neither of them differs from what was previously known, in anything which was not so obvious as not to require invention, or justify a patent. The corset described by both Johnson and Appellant purports to be an article of manufacture. Just such an article, in form and structure, was known and in use.

Prior to 1854, just such a corset in *form* as is described in Appellant's patent was well known and in use as a common article of merchandise. That is, woven corsets with woven bone pockets stopped off at unequal heights by weaving by the use of Jacquard were well known as a common article of merchandise prior even to 1854, the time of the publication of the Johnson specification.

[See deposition of George H. Barnes, folios 228 to 233, Record, and particularly the corset marked "Defendants' Exhibit Barnes," and questions 10 and 12.]

A corset properly constructed must be enlarged by gussets to give room for the breasts and the hips of the wearer. These parts contain bones in pockets of different lengths which, for distinction, I will hereafter call gusset bone pockets.

The corset also contains other bone pockets of different lengths, such as those at the back, those under the arms and those in the centre at the front. These latter, for convenience of distinction, I will hereafter call body bone pockets. In the old corsets, pockets were woven by the use of the Jacquard for all of these parts of a corset, those in the gussets and those in the body of the corset. Those pockets in the gussets were stopped off of unequal length in weaving, and by the use of the Jacquard. Those in the gussets for the breasts were so stopped off at unequal lengths at their bottoms. Those in the hip gussets were stopped off at unequal heights, or unequal lengths, at their tops. The pockets for the body bones were stopped off at unequal lengths at the tops, not by weaving, but by sewing—called fanning. The "Exhibit Barnes" illustrates all of these features. The old corsets, therefore, were of exactly the *form* described in the Appellant's patent, and contained bone pockets stopped off at different lengths in weaving by the use of the Jacquard. Such was the case with the pockets of both the bosom and hip gussets. They also contained woven bone pockets stopped off at different heights in weaving by the use of the Jacquard. Such was the case with the pockets in the hip gussets. These old corsets also contained body bone pockets stopped off at different heights. In all these particulars these old corsets were the same as the corset described by the Appellant.

Such was the state of the art prior to 1854, and before even Johnson added anything to it. What, then, remained for the Appellant or Johnson or anyone else to do to produce such a corset as is described in Appellant's patent? Certainly nothing in the form, principle or structure of the article. Certainly nothing in the relative heights or lengths of the bone pockets. Certainly nothing in the art of weaving bone pockets or of stopping them off in weaving, or in stopping bone pockets off at different heights in weaving. It seems, therefore, difficult to identify any substantial difference between the old corset and that described by the Appellant. The reason of this difficulty is because the difference is so small and so entirely destitute of anything partaking of principle, combination or structure. This difference consists only of a different way in stopping off a part of the bone pockets in the corset from that in which those particular bone pockets had been stopped off in the old corsets; that is, it consisted only in closing the tops of the body bone pockets, not at new places or at new relative positions, and not by a new means of stopping off bone pockets in the corset, but only of closing the body bone pockets at the same places where they had been closed by sewing, and by the same means that other bone pockets had been closed in the same corsets. It consisted only in closing the tops of the body bone pockets by the same means by which the tops of the hip gusset pockets had been closed in the old corsets. That is, it consisted only in doing to the tops of the body bone pockets just what had been done to the tops of the hip gusset bone pockets. The things closed were the same; the object of closing them was the same; the means and manner of closing them were the same; the property or function imparted to the

pocket by the closing was the same. Some of the pockets of a corset had been closed in weaving, and others in the same corset had been closed by sewing. The alleged invention consists only in closing those pockets which had been closed by sewing, the same as the others had been closed.

In making this statement I am not unmindful of the fact of the gusset bone pockets being stopped off pointedly by weaving, and that in practice the body bone pockets are stopped off square by weaving, but that is an immaterial difference, and nothing is said in Appellant's patent as to whether they are to be stopped off pointedly or square. This difference results from the fact of the gusset pockets being in gussets, and, therefore, necessarily brought to points. Johnson, in his specification, did state (which the Appellant did not) that these body bone pockets should be stopped off square instead of being terminated in points, and in this statement he recognized the prior existence of the gusset pockets being stopped off in weaving, and he evinced that he well understood that matter. But his saying they should be stopped off square was of no consequence, because the locality of those parts rendered it but natural to stop them off square, and besides they had been stopped off square by sewing. To further illustrate the nature of this alleged invention in its relation to the state of the art which preceded even the Johnson specification, suppose it had been the practice to close half of the body bone pockets in weaving and the other half by sewing, and some one had closed all of them in weaving and then claimed a corset having all the bone pockets closed in weaving, he would then have been claiming exactly what is claimed by Appellant as his invention. It is not pretended that the alleged in-

vention of the Appellant, or of Johnson, or of the two together, involves any new place of closing the pockets, or any new relation of the closed pockets to each other, or to any other part of the corset.

For further illustration, suppose that it had been the practice to attach buttons to a coat in two ways—small buttons being sewed on and larger ones being attached by an eye passing through the cloth, and having a rivet or pin placed through the eye on the opposite side of the cloth, and some one finally sews them all on, and claims a patent for a coat having all the buttons sewed on; his alleged invention would be of the same character as that of the Appellant. Compared with each other, they would stand thus: the old coat contained buttons sewed on; the old corset contained pockets stopped off by weaving; the old coat contained some buttons not sewed on; the old corset contained some pockets not stopped off by weaving; the alteration in the old coat consisted of doing to some of the buttons just what had been done to the others; the alteration in the corset consisted in doing to some of the pockets just what had been done to the others.

Again, suppose that it had been the practice in constructing rakes to attach some of the teeth to the rake head by inserting the teeth into mortises and fastening them by a pin, while others of the teeth in the same rake head had been attached by screwing them into the head, and some one had made a rake by screwing all the teeth into the head, the same as a part had been done before, and claimed a rake with all the teeth screwed into the head as a new manufacture; his alleged invention would

be of the same character as that of the Appellant. He would not have discovered any new place for the teeth, nor did Johnson or the Appellant discover any new place for stopping off pockets. He would not have discovered any new manner or means of attaching the teeth to the head, nor did Johnson or the Appellant discover any new manner or means of stopping of pockets. He would not have discovered any new relation between any of the teeth and the other parts of the rake, nor did the Appellant or Johnson discover any new relation of the stopped off pockets to each other, or to the other parts of the corset. In both cases the structure of the thing claimed as new would be the same as the old. In both cases the properties and functions of the thing claimed as new would be the same as the old.

It is respectfully submitted that neither attaching all the buttons as some had been done, nor all of the rake teeth as some had been done, nor closing all the pockets as some had been done, is patentable subject matter, or formed a patentable article of manufacture; but that, on the contrary, these changes were so obvious that they belonged to the public.

John Graham, long before the alleged invention of the Appellant, manufactured corsets having some of the gusset pockets stopped of by weaving by the use of the Jacquard.

Record—Graham's deposition, folios 179 to 182.

Raulston, folio 204.

THE ENGLISH SPECIFICATION OF JOHNSON, TAKEN IN CONNECTION WITH THE THEN STATE OF THE ART, DESCRIBED SUCH A CORSET AS THAT PATENTED BY APPELLANT, AND DIRECTED HOW TO MAKE IT, AND THEREFORE ANTICIPATES THE APPELLANT'S INVENTION, AND INVALIDATES HIS PATENT.

Johnson's specification assumes, as it has a right to do, that woven corsets, with bone pockets and stopped off at proper places, were well known, and that at least some of them were so stopped off in weaving, and that they were so made by the use of Jacquards, and that some of the pockets had been terminated in points; that is, it assumes, as then existing, what Barnes testified was a common article of merchandise at and before that time.

Barnes, in corset business since 1843; record, fol. 232.

Muller, engineer, superintendent of Convex Weaving Company, and put up corset looms for Appellant; record, fol. 193.

Lyall, corset manufacturer and loom builder; folios 292 and 293.

Whitehill, loom builder; fol. 317.

Serrell, expert; folios 225 and 226.

Eliot, expert; folios 254 to 258.

John Graham, folios 181 to 184.

It is totally immaterial whether the corsets be made by the use of one or two or any other number of Jacquards. The Appellant's patent is not limited to anything of that kind.

Testimony on the part of the Appellant, introduced to prove that the Johnson specification, taken with the otherwise existing state of the art, was not sufficient to teach how to make the patented corset, consists of the depositions of his expert, J. N. McIntire, of Albert Kunkler, a designer, and of Frederick Mengel, a designer and weaver.

I will first consider the import of that testimony, showing its weak character, and then turn attention to the overwhelming testimony to the contrary.

Mr. McIntire gives it as his opinion that corsets like the Appellant's cannot be produced according to the Johnson specification. He gives his reason for this opinion. It is stated at folios 89 and 90, and consists of his erroneously supposing such weaving would render it "necessary to have the connections between these warp threads and the two Jacquards * * * * * * intermittently made and broken; that is to say, it would be necessary for these warp threads to be connected with one Jacquard during the time a pocket was being woven, and then to have this connection cease, and the same threads connected to the other Jacquard for the purpose of forming the single portion, and so on successively." This opinion of Mr. McIntire is proved to be wrong, and his reason to be nonsense by an overwhelming amount of testimony, and by his own subsequent substantial confession, as will hereafter be more particularly shown.

Kunkler [folio 99], in reference to whether corsets can be practically woven as specified in the Johnson specification, answers: "It can't be done practically by two machines." Then, on being asked to give his reasons for

that opinion, he says [same folio]: "Well, it only needs one machine, and there is no use of having two." In this last answer there is an acknowledgement that it can be done, both by two Jacquards and by one Jacquard, and this is in contradiction to Mr. McIntire, where, he says, it was impossible to do it by two. The other witness, Frederick Mengel, in answer to a question respecting producing a corset like Appellant's from the Johnson description, says [folio 164]: "It is not practicable, and cannot be done." On being asked to give his reasons for his opinion, his answer is: "Because the result of making the pockets by two machines will be effected by the use of one machine. * * * It cannot be effected by two unless one rests altogether; because with one machine every desirable effect in corset weaving can be attained."

He then adds, that by the use of two there will be more friction, etc., than with one. This statement of the witness' reasons neutralizes his opinion stated, because it acknowledges that the thing can be done which he stated could not be done, and it also contradicts the same opinion which was given by Mr. McIntire. It amounts to another admission that it can be done by either one or two Jacquards.

Now, let two things be remembered—

1st. That this evidence was offered to prove the Appellant's position, viz.: that the corset could not be woven in the way Johnson describes, because he describes the the use of two Jacquards.

2d. That these witnesses were compelled to admit just the opposite of what they were called to prove; that is, they were compelled to admit that the corset could be

woven by the use of two Jacquards, and all they could add was that it could also be woven by the use of only one Jacquard.

This left no alternative for Appellant's counsel but to abandon their previous ground and to concede that they were previously in error in supposing that Johnson did not describe a practical means of weaving the corset.

This was all it was necessary to be proved of the Johnson specification. If it described the practical means of weaving a corset and stopping off the bone pockets at unequal heights in weaving, that is all that is required to cause it to antedate Appellant's patent.

But, Appellant's counsel not willing to admit that they had nothing to say against the Johnson specification, attacked the quality of the corset woven by the use of two Jacquards, as Johnson describes, to prove that it could not be done. They recalled their two witnesses—Zorn and Langlotz, to swear that there were defects in the corset so woven and marked "Exhibit Johnson Corset No. 2," [folios 114 and 119.] On this subject it should be remembered that the corset was not woven to illustrate either speed or superior quality, but merely to show what the Appellant's counsel denied, viz.: that it was practicable to weave the corsets by the use of two Jacquards, and that no such manipulation of threads as supposed by Mr. McIntire was necessary, and this it did show. But it was also proved that the quality was fair.

This was proved by the following testimony:—

Saatweber, who is a foreman in a corset manufactory, estifies thus [folio 330]:—

"Q. 5. Look at the corset marked 'Exhibit Johnson Corset No. 2,' and state what kind of a corset it is—in the quality of its weaving.

"A. That is about an average corset, as we weave them in our factory—on sixteen-bone corsets."

He then added that the defects in it were due to the carelessness of the weaver.

Gregersen, a corset manufacturer, testifies thus [folio 327]:—

"Q. 5. Look at corset marked 'Exhibit Corset Johnson No. 2,' and state what kind of a corset it is, in your opinion.

"A. That corset is as good as any other corset in the market. It is perfect shape, and is woven just as good as any other corset in the market."

Lyall, a corset manufacturer, testifies thus [folio 325]:—

"Q. 3. Look at 'Exhibit Johnson Corset No. 2,' and state what sort of a corset you regard it, in point of shape, and how it compares in that and other particulars with the average of corsets turned out by the United States Corset Company.

"A. This corset has a fine graceful shape, and it is well made, and is a fair average of the production of the United States Corset Company."

Louise Hilpmann, the girl who wove the corset "Johnson No. 2," and who was accustomed to weave corsets, being called by Appellant, on her cross-examination testifies of the quality thus [folio 108]:—

"X-Q. 16. Were the corsets which you wove on that loom with two Jacquards, good average corsets?

"A. Yes, sir."

To put an end to all pretence, that the loom put up and operated with two Jacquards would not weave good corsets, the following offer, [folio 136,] was made and rejected:—

"Counsel for Defendant's here says as follows:

"If the Complainant, or his counsel, has any doubt, about the corset Exhibit Johnson being a good marketable corset, or about the arrangement of the loom, by which it was woven, being suitable to weave good corsets, Defendants' counsel hopes they will accept the following offer:

"The Defendants offer to weave any number of good merchantable corsets which the Complainant may require, in presence of the Complainant, his counsel and expert, on the same loom with two Jacquards on which Exhibit Johnson was woven, and to put them in evidence in this case, all provided the time is extended four days for that purpose.

"Counsel for Complainant, with the highest regard for the Defendants' counsel, respectfully declines the above offer."

Judging from the last question which Appellant's counsel puts to his expert [folio 135] he seems to have misunderstood the meaning of the Johnson specification. He there asks whether or not there would be any difficulty in operating two Jacquards "simul-

taneously," if the cords of one be connected with the warps which determine the contour of the corset, and the cords of the other be connected with the warps for forming the pockets, having the cards appropriately punched in each case. Of course there would not only be difficulty in operating simultaneously in such a case, but it could not be done, and I am not aware that anybody has been so ignorant as to suppose that it could be done; at any rate, Johnson was not. The pockets, and the parts between the pockets forming the contour of the corset, are woven successively, a pocket being woven after completing the part intervening between that pocket and the last preceding pocket, and the weaving of that pocket being followed by the weaving of the part intervening between it and the next succeeding pocket. Appellant's counsel, as his question seems to indicate, supposed that Johnson directed the weaving of the pocket and one of these intervening parts simultaneously; it is no wonder that he allowed his witnesses to fall into the errors which I shall hereafter expose.

Johnson does not say that the part of the corset which determines its shape or contour is to be woven simultaneously with the pockets. If he did, he would say what is an obvious impossibility. But he does say, and distinctly, that the pockets are woven "simultaneously with the single parts of the corset." It is perfectly obvious, as Mr. McIntire states at folio 90, that Johnson meant by *single* part in this connection the single part above, and in range with the pockets. The pockets and that single part are of necessity woven simultaneously; whereas the pockets and part effecting the contour it is impossible to weave simultaneously. It certainly was not necessary for Johnson to have added in his specification that the single

part, which he meant to say was woven simultaneously with the pockets, did mean those single parts at the tops of the pockets, and not the single parts intervening between the pockets, because, in working according to his description, the former cannot be avoided, and the latter cannot be accomplished.

The use of two Jacquards in a loom is also shown in *Mechanics' Magazine* of 1836, and fully explained by Eliot [folios 268 and 269].

Two Jacquards in the same loom were used by witness, James Leggett, in 1846, and it was a common thing [folio 309 to 313].

See also Kunzli [folios 304 and 305].

In the contest, as to what the Johnson specification describes, the manœuvring on the part of the Appellant will be found very significant of the erroneous views which he and his expert first had of the Johnson specification, and the conclusion will be found to show the inability of Appellant's counsel to prevent its appearing that the Johnson specification describes the patented article. The antagonistic positions which they successively took respecting it as they were driven from one position to another by the testimony, and their being compelled to finally concede that the Johnson specification did describe a practical means of making the patented article, and their being at last left with no answer or pretended answer to this piece of evidence except the immaterial as well as the erroneous one, viz:— that although Johnson did describe a practical means of making the corset, yet that the corset which Appellees caused to be made by his means was not of as good

quality as those made by the Appellant, evince in the strongest possible way, the sufficiency of the Johnson specification.

The only way in which the first attempt was made to meet the Johnson specification, on the part of the Appellant, was to insist that it did not describe practical means of weaving the corset, and that the corset could not be produced from that description. Now, as Judge Blatchford, in his opinion says, it was not necessary that the Johnson specification should contain such a description, because Appellant's patent is not for means of making the corset, but is for the corset itself. Yet, the counsel for the Appellant boldly took that position, and signified their readiness to defend it. Upon their holding or losing that position, they appeared to put the result of the battle. To maintain that position, they recalled their champion expert, and, with an air of defiance, put to him the following question [folio 88] :—

> "Q. 6. Can a corset, with the bone pockets stopped off in weaving, as in Complainant's patent, be produced from the description in Johnson's provisional specification, by a person acquainted with the art of Jacquard weaving; and give your reasons for any opinion you may express on that subject?"

In answer to this question, the expert, with the same apparent assurance, said :—

> "A corset with the bone pocket stopped off in weaving, and like that shown and described in Complainant's patent, cannot be produced from the said description; in other words, this description in Johnson's provisional specification, does

not so instruct a person acquainted with the art of Jacquard weaving as to enable him to produce such a corset."

Thus, then, the issue for the time being stood. The Johnson specification was put forth by the Appellees as a complete answer to the Appellant's patent, and the only answer by which it was attempted to be met was that it did not sufficiently describe means of making the corset. The reason and only reason which they gave or pretended to give for such alleged insufficiency of the Johnson specification was that it specified the use of two Jacquards in weaving a corset, and that it was impossible to weave a corset by the use of two Jacquards and stop off the pockets as they are stopped off in the corset described in Appellant's patent. To prove this, Appellant's expert, Mr. McIntire, did testify that it was impossible for a corset to be made as described by Johnson, and gave as his only reason that Johnson specified the use of *two Jacquards* in weaving the corset—one to form the pockets and the other the contour of the corset,—and that it was impossible to so use two Jacquards, and gave the following [fol. 89] as his only reason for his opinion:—

"In the production of corsets, such as referred to in Complainant's patent, the same warp threads which, by a certain system of inter-lacing with the weft threads or filling, enter into the composition of the doubly-woven or pocket portions of the corset, enter also (all of them) into the composition of the single parts of the corset; from which it follows, as a necessity, that these warp threads must be continually manipulated during the insertion of the filling and production of the corset material, in order to do which, and at the

same time have them controlled during one part of the time by one Jacquard and at another by another Jacquard, it would be necessary to have the connections between these warp threads, and the two Jacquards alluded to in this provisional specification, intermittently made and broken; that is to say, it would be necessary for these warp threads to be connected with one Jacquard during the time a pocket was being woven, and then to have this connection cease and the same threads connected to the other Jacquard for the purpose of forming the single portion, and so on successively during the successful formations of the single and double portions of the material, which conditions and mode of operation were wholly unknown in the state of the art, and seem to me to be practically impossible in weaving the material."

Two other witnesses, and only two, were called by the Appellant to corroborate Mr. McIntire in this opinion, namely, Kunkler and Mengel. On being pushed, on cross-examination, Mr. McIntire, in the following question and answer, pages 77 and 78, was compelled to admit his ignorance of corset weaving:—

"X-Q. 39. Why will not a second Jacquard take care of the warp threads which form the bottoms of the pockets, and the first Jacquard form all the rest of the corset? I mean, by the bottom of the pocket, the side nearest the body when worn. Please to give all the reasons that you can in reply to this question?

"A. I don't see any reason why a loom could not be rigged up to accomplish the purposes explained in the question, with the use of two Jac-

quards; but I have never seen or heard of such an arrangement, and I am not practically experienced enough in the subject of weaving of corsets to know whether or not any practical difficulties might be encountered in such proposed contrivance."

Witnesses were then, between the 11th and 24th of January, called on the part of the Appellees, consisting of experts and practical Jacquard loom makers and Jacquard weavers, to prove that Mr. McIntire was mistaken, and that his views respecting the use of Jacquards in weaving corsets were entirely erroneous.

L. W. Serrell [folios 234–6], expert, testifies thus:—

"Q. 7. Is he correct or incorrect in what he says about the use of two Jacquards for weaving corsets; if you shall say he is incorrect, please explain wherein?

"A. He is incorrect in his statements relating to the state of the art. Some of his statements are correct; but in the particulars which I shall name he is incorrect. In the specification of Johnson, referred to by him, a statement is made that his invention consists in the employment of the Jacquards in the loom, one of which affects the shape or contour of the corset, and the other the formation of the double portion or slots for the introduction of the whalebones. Following out the suggestions of Johnson, by a person skilled in the art and having the knowledge—which could be derived from reference to the work of Gilroy, before mentioned—a man having a loom adapted to two Jacquard mechanisms, he

would most conveniently employ them in the weaving of a corset in the manner stated by Johnson. To accomplish this it would only be necessary to connect the heddle-eyes with two cords, one leading to one Jacquard and one to the other, and the Jacquard mechanisms would be brought into operation, either jointly or separately, according to the character of the loom and the part of the corset that was being woven. For these reasons Mr. McIntire's statement, 'that it was impossible, with the known state of the art, to thus employ two Jacquards,' is incorrect. Furthermore, Mr. McIntire states that 'it would be necessary to have the connections between these warp threads intermittently made and broken.' In this he is incorrect; because the cords that were not operated, leading to one of the Jacquards, would hang loose, while the cords leading to the other Jacquard, would be drawn tight; furthermore, it would not be necessary to have the connection to one Jacquard cease, and the connection made to the other Jacquard, for the purpose of forming the single portion. For the beforementioned reasons the premises of Mr. McIntire are erroneous, and the deductions drawn therefrom equally incorrect.

"Q. 8. To have the same warp threads which enter into the double portions or pockets of a corset together with the single portion above the pocket simultaneously, and also enter into the contour or shape of the corset, one Jacquard performing the first of these duties and another Jacquard the second, is it necessary to have the connections

between these warp threads and the two Jacquards intermittently made and broken? If it is not, state why not.

"A. It is not necessary that the connections between the Jacquards and warp threads should be intermittently made and broken, because the connections by the double cords to the respective Jacquards will always remain, regardless of whether one Jacquard is being used or the other.

"Q. 9. In the use of two Jacquards in one and the same loom, is there or not any difficulty in having any thread of the warp manipulated at one time by one of the Jacquards and at another time by another Jacquard? If not, please state why not.

"A. There is not any difficulty, for the reasons named in my last answer.

"Q. 10. With the uses of Jacquards, which were commonly known among weavers of corsets prior to 1854, would, or not, directions to stop off the bone-pockets in the weaving have been a sufficient explanation for doing it by the use of either two Jacquards or one Jacquard?

"A. It would have been a sufficient explanation to any party familiar with Jacquard looms."

And at folio 238, thus:—

"Q. 15. State whether, or not, the corset described in Complainant's patent, on which this suit is brought, could be made as easily by the use of two Jacquards, as described in the Johnson specification, as by the use of one Jacquard; if it could, explain why.

"A. It could be made as easily with two Jacquards as with one, and *vice versa.* If a man had a loom adapted to two Jacquards, he could make corsets upon the same most conveniently by using them both. If his loom was adapted to only one Jacquard, he could more easily use that in making a corset than to alter the loom to include two Jacquards.

"Q. 16. State whether or not there is any distinction, or anything said in the specification of Complainant's patent as to the number of Jacquards to be used in weaving the corsets therein described.

"A. There is nothing, one way or the other.

"Q. 17. State whether, or not, a corset woven by the use of two Jacquards, like the one described in the specification of Complainant's patent, would be as much within what he describes as his invention, as if it were made by the use of one Jacquard.

"A. I understand the invention in Complainant's patent to relate to a corset, and not to any peculiar mechanism or Jacquards employed. Two corsets could be made like those described in Complainant's patent, and be exactly alike, thread for thread, one made on a loom having a single Jacquard mechanism, and the other made on a loom having a double Jacquard mechanism."

James Lyall, [folio 289,] testifies thus:—

"Q. 2. Were you present, and did you hear the testimony of J. N. McIntire, taken on the 7th and 8th instant?

"A. I was, and did.

"Q. 3. Have you read his deposition since that time, and especially his answer to the sixth question, printed on the 86th, 87th, 88th and 89th pages of Complainant's record?

"A. I have.

"Q. 4. Is he correct, or incorrect, in what he therein says about the use of two Jacquards in one loom for weaving corsets? If you say he is incorrect, please state wherein, and give your reasons.

"A. He is incorrect; for two Jacquards can be mounted on one loom to weave a corset with the pockets stopped off in the weaving at different heights. The one Jacquard can be arranged to weave the contour or shape, the other Jacquard to weave the pockets or double portion of the corset. The cords connecting to the one mail that the warp thread passes through can also be connected to the two Jacquards; the one Jacquard that forms the contour, while in operation, would leave the cords slack on the Jacquard that forms the pocket, while the Jacquard that forms the pocket would leave the cords connecting with the Jacquard that forms the contour, slack while in operation. But it is not necessary that those cords should be slack, or that either of the Jacquards should be arrested; the cards can be cut and the cords so arranged so that the two Jacquards operate through the entire corset.

"Q. 5. To have the same warp threads which enter into the double portion or pockets of a corset simultaneously with the single portion above the

pocket enter also into the shape or contour of a corset, one Jacquard performing the first of these duties and another Jacquard the second, is it necessary to have the connections between these warp threads and the two Jacquards intermittently made and broken? If it is not, why not?

"A. It is not necessary; for the reason—two cards can be attached to the same mail, and the other ends attached to the two Jacquards. The Jacquard machine is only required to lift the warp-thread, while a weight draws it down. In case of the one Jacquard operating, the cord connected to the other only remains slack, the cards being cut correspondingly on the two Jacquards so as not to affect the operation of the one Jacquard while it is doing its work."

And, at folio 292, he testifies thus:—

"Q. 13. With the uses of Jacquards, which were commonly known among weavers prior to 1854, would or would not directions to stop off the bone pockets of a corset in the weaving have been a sufficient explanation for doing it by the use of either two Jacquards or one Jacquard?

"A. It would be sufficient, for the capacity of the Jacquard is such that two Jacquards would do it as well as one and one as well as two.

"Q. 14. If a person acquainted with the uses of Jacquards in weaving had, prior to 1854, been told to stop off the bone pockets in weaving of corsets at heights required, and in so doing to use two Jacquards, one to form the contour of the corset, and the other Jacquard to form the

pocket and the single part above it, would, or would not, that have been sufficient instruction to such person to weave such corset, using therein two Jacquards?

"A. It would have been sufficient instruction.

"Q. 15. State whether, or not, in your opinion, it was necessary for anything to have been added to the specification Exhibit Johnson to have furnished full explanation to a corset weaver how to weave a corset and stop off all the bone pockets of a corset at the right places in the weaving?

"A. I cannot see anything that could be added to explain it more fully than it has been. It is very concise and correctly explained, to one acquainted with the state of art.

"Q. 16. State whether, or not, the corset described in Complainant's patent, on which this suit is brought, could be made as easily by the use of two Jacquards, as described in the Johnson specification, as by the use of one Jacquard?

"A. It could be made just as well by the use of two Jacquards as by one.

"Q. 17. And as described in the Johnson specification?

"A. Yes."

W. H. Lord [folio 298] testifies thus:—

"Q. 3. If you have read the deposition of J. N. McIntire, taken on the 7th and 8th instants, state whether, in your opinion, he is correct or incorrect in what he therein says in answer to the sixth question regarding the use of two Jacquards in one loom for weaving corsets? And if you

say he is incorrect, state wherein, and give your reasons.

"A. He is incorrect wherein he says, 'From which it follows as a necessity that these warp threads must be continually manipulated during the insertion of the filling and production of the corset material, in order to do which, at the same time have them controlled during one part of the time by one Jacquard and at another by another Jacquard, it would be necessary to have the connections between these warp threads and the two Jacquards, alluded to in this provisional specification, intermittently made and broken—that is to say, it would be necessary for those warp threads to be connected with one Jacquard during the time a pocket was being woven, and then to have this connection cease and the same threads connected to the other Jacquard for the purpose of forming the single portion.' There is no occasion to change the connections from one Jacquard to another. It is a very easy matter to connect two Jacquards to each and every thread that forms a corset. You have only to cut your cards from your design to suit the two Jacquards. After two Jacquards are mounted, as above stated, it would be a very easy thing to have one form the contour or shape and the other to form the pockets or double portions simultaneously with the single portions at the top."

J. B. Eliot [folios 250 to 253] and Robert Whitehill [folios 313, 314 and 315], as well as others, testify to the same.

James Leggett [pages 157 and 158] testifies thus:—

"Q. 4. Did you ever see two Jacquards employed in one loom? If yea, when first and where?

"A. I have seen and worked with two Jacquards in one loom; the first time, I think, about the year 1846, in Scotland.

"Q. 5. Whereabouts in Scotland?

"A. In my native place—Strathavon.

["The testimony as to the use of two Jacquards in one loom is objected to. It is admitted on the part of the Plaintiff that the use of two Jacquards in one loom has long since been known and practiced.]

"Q. 6. When did you leave Strathavon?

"A. I left in the year 1853.

"Q. 7. State how these two Jacquards in one loom were rigged, which you so saw and worked with, in Strathavon.

"A. They were rigged on the top of the loom, each throwing the cards to opposite sides of the loom.

"Q. 8. How were these looms corded?

"A. They were corded, in some instances, to manipulate the one thread by both Jacquards; in others, each one to manipulate a certain part of the threads only, as required to produce the pattern wanted.

"Q. 9. Will you please state what the custom of the inhabitants of that part of Scotland was, at that time, as respects their all working in one factory or otherwise?

["Objected to as immaterial.]

"A. In the small towns around Glasgow, each family had its own work-shop and own looms, and had the work supplied from the manufacturers in the city, consequently, we had to do all our own loom fixing, which is not the case in large factories.

"Q. 10. How many looms, employing two Jacquards each, and so corded that each Jacquard operated the same warp threads, did you, or you and your father, have in operation at Strathavon during these years?

"A. Four.

"Q. 11. Did you know of any other such looms in that part of Scotland or elsewhere?

"A. Yes; I did know of a good number more. The thing was so common that it was no matter of curiosity."

To put the matter entirely beyond doubt, the Appellees incurred the expense and trouble of causing two Jacquards to be mounted and used as described by Johnson in weaving, in presence of numerous witnesses, such corsets as are described in Appellant's patent, and put in evidence one of the corsets so woven, which is marked "Exhibit Johnson Corset, No. 2, J. G., Jr., Examiner."

After Mr. McIntire had seen this loom, he was compelled to admit his error thus [folio 135]:—

"X-Q 45. Supposing all the warp threads are corded to each of two Jacquards, do you see any difficulty in having both Jacquards operate continuously and simultaneously during the whole time of the manufacture.

"A. I have never seen or heard of a loom rigged with the Jacquards so as to accomplish this, except the one rigged up by Defendants; but I should think that in a loom so rigged up there would be no difficulty in having both Jacquards operate continuously, assuming that the cards were properly punched to permit it."

Thus exploded the theory of Mr. McIntire. It then stood proved that his theory and his reasons given in support of it were all erroneous, and the sufficiency of the Johnson specification to produce a corset like the Appellant's was left unimpaired. The testimony against Mr. McIntire's erroneous notions as to the capacity of Jacquards was so overwhelming and unanswerable, including actually *doing the thing* which he testified *could not be done*, that Appellant made no subsequent effort to maintain that position, but practically abandoned it. In the face of such evidence he could no longer contend that two Jacquards could not be successfully used as described by Johnson in weaving the patented corset, and were compelled to surrender that position. But, notwithstanding their being so effectively driven from their position, their dislike of unconditional surrender urged them to adopt almost any expedient to avoid it. So they took another position, which was that, although they would have to admit that they were mistaken as to the practicability of using two Jacquards, yet the corset which the Appellees had woven by the use of two Jacquards, although containing the patented features, was somewhat defective. These defects, it turned out, were due to the breaking of threads, which was not caused by the use of two Jacquards, but was due exclusively to the

carelessness of the weaver, and the corset was as perfect as corsets usually are. Thus terminated the attack of Appellant upon the Johnson specification, and the proof is conclusive, as it stands, that the published specification of Johnson describes a corset like the one described in Appellant's patent, but also a means of making such corsets. The conclusion of this contest on this Johnson specification ought to have been sufficient to settle this case.

The Appellees submitted the Johnson specification as an answer to the patent by describing both the corset and means of making it. The Appellant answered that, as Johnson proposes the use of two Jacquards, and that, as such is impossible, the Johnson specification does not describe a practicable way of making the corset. This the Appellees denied, and contended that the corset could be made by the use of two Jacquards as specified by Johnson.

This denial and affirmation became to be the issue as to whether or not Johnson described a practical means of weaving the corset, the Appellees contending it did, and the Appellant contending it did not. The Appellant was beaten by the testimony on this issue, and this ought to have ended the controversy. But as Appellant still insists that there was something about his corset which was not reached by the Johnson specification, we will go still more into detail.

As there are numerous facts involved in the case, and as the most of them are either expressly or impliedly admitted, I will submit a statement of—

FACTS NOT DISPUTED.

1. That in a properly constructed corset the bones must be of different lengths, varying in heights to suit the person of the wearer.

2. That the tops of the bones must be at about equal distances from the top edge of the corset.

3. That corsets have always been made with the bone pockets in the same corset, stopped off at unequal heights, whether by sewing or weaving.

4. That the bone pockets in a corset have always been stopped off at substantially equal distances from the top edge of the corset.

5. That the distances of the top ends of the bone pockets in a corset from its top edge has always been determined by trimming off the top edge.

6. That it would be useless and certainly absurd to stop off the bone pockets of a corset at equal heights.

Graham, record, fol. 182.
Lyall, record, fol. 217.
Lord, record, fol. 165, 166.
Barnes, record, fol. 231.

7. That weaving bone pockets in corsets by the use of the Jacquard was well known and practiced prior to the publication of the Johnson specification of 1854.

8. That prior to the specification of Johnson of 1854 it was well known how to stop off the pockets of corsets in weaving.

9. That practical weavers, acquainted with the use of the Jacquard, could as easily stop off the pockets at unequal as at equal heights, and as easily at one place as at another.

10. That corsets with bone pockets stopped off by weaving was a common article of merchandise in this country at the time of the publication of the Johnson specification [folio 232.]

11. That the use of two Jacquards in the same loom was well known prior to the date of the Johnson specification.

12. That the heights at which the bone pockets are stopped off in the corset described in Appellant's patent, do not vary from the heights at which they had been usually stopped off by sewing.

13. That the parts of the corset which effect its shape or contour are between the pockets or between portions which are in line with the pockets.

14. That in a corset with pockets stopped off by weaving, the quantity of warp thread is equal in the parts between the pockets, in the single parts above the pockets and in the two layers which form the pockets.

15. That there is the same number of filling threads in the single portions above the pockets as in both layers which form the pocket.

MR. McINTIRE, APPELLANT'S EXPERT, DOES NOT SUFFICIENTLY UNDERSTAND THE USES OF JACQUARDS TO RENDER HIS OPINIONS RELIABLE.

The correctness of this proposition appears both in the specification of Appellant's patent, which he claims to have prepared, and in his testimony.

Under the most obvious construction of the patent, it is made to disclaim itself—

1st. It is conceded on all hands, and everybody acquainted with a corset knows that all corsets have the bone pockets of the same corset at about uniform distance from the edge, and this whether the pockets are stopped off by weaving or by fanning.

2d. The disclaimer is as follows: "I am aware of, and do not claim a woven corset with the pockets stopped and finished off at a uniform distance from the edge."

3d. This disclaimer, under the most obvious construction of the patent, covers and disclaims the corsets made under the patent.

4th. In the body of the specification [fol. 96], in stating one way of making corsets by weaving, it is said thus: "the upper ends of the bones are necessarily all located at a uniform distance from the edge." This is followed by a statement that the patentee proposes by his invention to overcome this objection; that is, overcome the objection of having the bone pockets stopped and finished off at uniform distances from the edge; that is, by his invention he proposes to overcome an objection which the product of his invention contained, and which the invention created.

5th. Mr. McIntire, in his testimony [folio 16], again repeats in substance what is contained in the specification of the patent. He says that the inventor, in his specification, having pointed out in the previous state of the art that woven pockets in corsets had been stopped off "at a uniform distance from the upper edge of the corset, resulting in an imperfection of shape or pattern," and then adds that the object of the invention was to overcome the objection arising from such relation of the ends of the pockets and the edge of the corsets.

Thus it appears that a necessary characteristic in all

corsets, however made (as well those made by the Appellant as by others), Mr. McIntire declares was an objection, and sets it forth as an objection, and one which the invention is intended to remedy, and in the patent formally disclaims corsets containing it.

The only way of arriving at a conclusion as to what this patent is for, is to put an unnatural construction on the language of the specification, and to assume that when it speaks of a corset it does not mean what is usually understood a finished corset, but only one in progress of construction.

Again, Mr. McIntire, being the author of the specification, has caused the patentee to state therein what is entirely incorrect, and it is to be presumed that the error arose from a want of knowledge of the subject and not from an intention to assert a falsehood.

The specification [folio 96] in reference to the old practice of stopping off the bone pockets by weaving, says: "The upper ends of the bones are *necessarily* all located at a uniform distance from the edge." Now, the fact is, that the upper ends of the bones are not *necessarily* so located.

Every line of the testimony in the case, both sides, on this subject, directly contradicts this statement, and shows that the pockets for the bones can be stopped by weaving just as easily at one place as at another, and that the tops of the bones can be located just as easily at one place as at another.

Mr. McIntire, in answer to a leading question [folio 89], respecting the sufficiency of the Johnson specification, gives his opinion thus:—

> "A corset with the bone pocket stopped off in weaving, and like that shown and described in Complainant's patent, cannot be produced from the said description; in other words, this description in Johnson's provisional specification does not so instruct a person acquainted with the art of Jacquard weaving as to enable him to produce such a corset."

Mr. McIntire, in answer to the same leading question, respecting the sufficiency of Mr. Johnson's specification, gives his opinion thus:—

> "It was not possible with the known state of the art, to thus employ two Jacquards, by one of which the warp threads should be manipulated so as to produce the double weaving or pocket portion, while by the other these warp threads should be so controlled or operated upon as to produce the single weaving, or 'single parts' of the corset."

Mr. McIntire then, in the same answer, gives three principal reasons in support of his opinion, every one of which, as well as his opinion, was erroneous.

These statements of Mr. McIntire were looked upon with astonishment by persons acquainted with the uses of Jacquard looms, and were pronounced entirely destitute of any foundation, in fact. Practical, experienced Jacquard weavers, as well as experts, were, therefore, called as witnesses, to correct these errors, which, in a subsequent cross-examination, Mr. McIntire was compelled to substantially admit were errors.

Inasmuch as all that Mr. McIntire says in this case respecting the insufficiency of the Johnson specification

is based on the errors which he here expresses as reasons for his opinion, these reasons will be considered somewhat in detail, although they have been alluded to before.

The first reason he gives is the following:—

> "It was not possible with the known state of the art to thus employ two Jacquards, by one of which the warp threads should be manipulated so as to produce the double weaving or pocket portion, while, by the other, these warp threads should be so controlled or operated upon as to produce the single weaving or 'single parts' of the corset."

His second reason is thus stated:—

> "from which it follows, as a necessity, that these warp threads must be continually manipulated during the insertion of the filling and production of the corset material, in order to do which, and at the same time have them controlled during one part of the time by one Jacquard, and at another by another Jacquard, it would be necessary to have the connections between these warp threads and the two Jacquards alluded to in this provisional specification intermittently made and broken; that is to say, it would be necessary for these warp threads to be connected with one Jacquard during the time a pocket was being woven, and then to have this connection cease, and the same threads connected to the other Jacquard for the purpose of forming the single portion, and so on."

The third reason he gives is the following [fol. 90]:—

> "I clearly understand that this provisional

specification distinctly instructs those skilled in the art to employ one Jacquard for the purpose of manipulating all the warp threads in one manner so as to effect the formation of the double portions, and another Jacquard for the purpose of operating the said threads so as to effect the composition of the single portions which intervene between the pockets, and which possess the characteristic feature of inducing to the 'shape or contour' to the finished article."

These statements of Mr. McIntire, instead of being good reasons to support his opinion, are distinctly and fully proved to be mistakes. This is done by the following positive and direct testimony, being testimony from witnesses well qualified to testify, and called expressly to expose these errors of Mr. McIntire, and to prevent the Court being misled by them, and so misunderstanding the Johnson specification.

William H. Lord, who is thirty-three years of age, commenced to help make and mount Jacquard looms when nine years of age, and has ever since worked at or superintended weaving on, or building Jacquard looms, first in England, then Scotland, then Germany, and then and for the last thirteen years in this country. He is a practical Jacquard weaver of a great variety of fabrics, including corsets, and a practical Jacquard loom builder of an uncommon amount of experience, and understands every thing connected with the use of Jacquard looms in all its details; and besides, he is an inventor, and among other things, of apparatus to take the place of the Jacquard.

Mr. Lord [folios 297 and 298,] swears positively that

Mr. McIntire is wrong in all his statements of reasons why he thinks the Johnson specification is insufficient, and adds that it is an easy matter to connect two Jacquards to each and every thread that forms a corset, and that the connections need not be changed from one Jacquard to the other. He also says it is a "very easy thing to have one" (meaning one Jacquard) to "form the contour or shape, and the other to form the pockets or double portions simultaneously with the single portions at the top."

This witness was not cross-examined on these points.

Robert Whitehill, machinist and loom builder, and Jacquard machine maker [folios 313 and 314], positively contradicts Mr. McIntire's statements, and adds the following:—

> "and must say that in my judgment he knows but little, if anything, about the subject matter of what he deposes."

At folio 315 he says it is well known by all acquainted with Jacquard weaving, that the same warp threads can be manipulated by different Jacquards, "one of which could be used for weaving the shape or contour of a corset, the other to weave the pockets simultaneously with the plain part at the top of the pockets."

This witness was not cross-examined on this subject.

James Lyall [folio 211], a manufacturer of looms and machines, inventor and patentee of the positive motion shuttle, and who is adapting it to weaving all kinds of fabric [folio 288], testifies that he has been thoroughly acquainted with the Jacquard machine and Jacquard looms for twenty-five years; commenced making Jac-

quard machines in 1848; put the cords in the Jacquard machines, and made dies for cutting the cards, and cut them; has made and mounted a great many Jacquard looms, including the Jacquards; was present and heard the testimony of J. N. McIntire on the 7th and 8th of January, 1874, and has since read his deposition then taken.

This witness [folio 289] states positively that Mr. McIntire is incorrect in what he says about the use of two Jacquards in one loom for weaving corsets, and then adds the following explanation:—

> "for two Jacquards can be mounted on one loom to weave a corset with the pockets stopped off in the weaving at different heights. The one Jacquard can be arranged to weave the contour or shape, the other Jacquard to weave the pockets or double portion of the corset. The cords connecting to the one mail that the warp thread passes through can also be connected to the two Jacquards; the one Jacquard that forms the contour while in operation would leave the cords slack on the Jacquard that forms the pocket, while the Jacquard that forms the pocket would leave the cords connecting with the Jacquard that forms the contour, slack while in operation. But it is not necessary that those cords should be slack, or that either of the Jacquards should be arrested; the cards can be cut and the cords so arranged so that the two Jacquards operate through the entire corset."

Mr. Lyall then [folio 289] positively contradicts Mr. McIntire in what the latter says is necessary in order to have the same warp threads enter into the double

portion or pockets of a corset simultaneously with the single portion above the pocket and also into the shape or contour of a corset, and adds his explanation.

At folio 291 Mr. Lyall states that there is no difficulty in having any thread of the warp manipulated at one time by one Jacquard and at another time by another Jacquard, or in having any thread of the warp operated at the same time by both Jacquards, or in having any thread of the warp operated a part of the time by one Jacquard, another part by both Jacquards, a third part by the other Jacquard, and a fourth part by neither. He adds to his statement an explanation and illustration.

He was not cross-examined.

L. W. Serrell, an expert, and patent agent of much experience [at folio 234], on his attention being called to the deposition of Mr. McIntire, taken on the 7th and 8th of January, 1874, says positively that Mr. McIntire is incorrect in his statement relating to the state of the art. He adds, that the man acquainted with Jacquard weaving would, according to the statement of Johnson, use two Jacquards in weaving a corset, and to do which, it would only be necessary to connect the heddle eyes with two cords, one leading to one Jacquard and one to the other Jacquard; by which the Jacquards could be used jointly or separately. He says: "For these reasons Mr. McIntire's statement that it was impossible, with the known state of the art, to thus employ two Jacquards, is incorrect." Also that Mr. McIntire is incorrect in supposing and saying that it would be necessary to have the connections between the warp threads and the cords intermittently made and broken.

J. B. Eliot, an expert of great experience [folio 250], testifies in reference to Mr. McIntire's statements, thus:—

> "He is manifestly incorrect in what he says concerning the use of the two Jacquards."

He then add his reasons at length.

In addition to the testimony above referred to, showing the incorrectness of Mr. McIntire's testimony in reference to the Johnson specification and the uses of two Jacquards in weaving corsets, is the circumstance of his being recalled after that testimony was taken, to wit, on the 10th of February, 1874, and his not attempting to answer any of that contradicting testimony, or to in any other way maintain the correctness of his previous testimony which had been thus contradicted. Indeed, on being pressed on cross-examination in giving his last deposition, he is compelled to admit that he did not sufficiently understand the use of two Jacquards to comprehend what was or what was not necessary in their operation. A question is put to him [folio 129] as to how the warp threads are properly lifted when woven in the usual way by one Jacquard so as to produce the two thicknesses for the pocket.

He concludes his answer to this question by saying:—

> "I am not perfectly familiar with all the different kinds of texture produced by different ways of interlacing a series of picks with a series of warp threads."

He is asked [folio 133] why a second Jacquard will not take care of the warp threads which form the bottoms

of the pocket, and the first Jacquard form all the rest of the corset. His answer to this question he concludes by saying:—

> "I am not practically experienced enough in the subject of weaving of corsets to know whether or not any practical difficulties might be encountered in such proposed contrivance."

If the Court shall deem it worth while to consider anything further on the subject of priority of invention than the Johnson specification, then the following is submitted:—

THE APPELLANT, ACCORDING TO HIS OWN TESTIMONY, DID NOT MAKE THE ALLEGED INVENTION PRIOR TO AUGUST, 1870.

The testimony of the Appellant upon this subject is found in the record at folios 80, 81 and 82.

John Baer, an employee of Mr. Cohn, at folio 31, substantiates this testimony of Mr. Cohn.

Louis Langlotz, another employee of Mr. Cohn, further substantiates this testimony at folio 70.

THE PATENTED CORSET WAS MANUFACTURED BY THE CONVEX WEAVING COMPANY PRIOR TO THIS DATE OF AUGUST, 1870.

The Convex Weaving Company was a company engaged in manufacturing, among other articles, corsets, and the

following persons employed by that company, and who had the best opportunities for knowing all about their manufactures, testify that corsets with the bone pockets stopped off at different heights relatively to each other, by weaving, were made by that company in large quantities long before August, 1870, the most remote date to which the Appellant pretends to carry his invention:—

George Jens Gregersen.
Kate Banagan.
Hannah Messing.
T. H. Muller.
Mary Rehm.
Katie Ryan.
Kate Stone.
Gussie Truka.

Because the Appellant has attempted to contradict this proof, it will be useful to set forth the testimony of these witnesses at some length.

It may be well to first observe that the principal question is whether the pockets were stopped off by *weaving*. Because if they were, it is so natural that they were stopped off at places where it had been the uniform practice to stop them off by hand by sewing, that it would have been very unnatural to stop them off at any other places.

"Complainant's Exhibit No. 2" is the corset introduced by the Appellant as the alleged infringement.

George Jens Gregersen was and is at present foreman in the finishing department of the United States Corset Company, one of the Appellees, and previous to going there had been for a year and a half in the employ of Mr.

Cohn, the Appellant. After stating that while so in the employ of Mr. Cohn, corsets had come under his hands and supervision, having the pockets stopped off in the weaving, as shown in "Complainant's Exhibit 2," he testifies at folios 146 to 149, that while he was in the employ of the Convex Weaving Company, from July, 1868, to February, 1869, corsets with pockets stopped off in the weaving at different heights, and as shown in "Complainant's Exhibit 2," were manufactured there; that he superintended the laundering and finishing of these corsets, and that they were sent away with the other corsets. He says that he is sure that one loom made of these corsets two dozens per day; that some of them were good, and some of them second quality, as is usual with this article of manufacture.

T. H. Muller, superintendent of the Eagle Pencil Company, and a mechanical engineer, was employed by the Convex Weaving Company from fall of 1866 to latter part of 1869; and it appears [folio 188] that he had charge of the construction of their machines and building of looms; and [folios 189 to 192] he says that while there, corsets in which the bone pockets were stopped off at different heights in the weaving were made, finished and put up with the other corsets and sent to New York, and that he afterwards saw some of them in shop windows. At folios 189 and 198, he says the places for stopping off these pockets were determined by the location of the fanning in the corsets used as patterns.

Kate Banagan [folio 185, *et seq.*,] commenced to work for the Convex Weaving Company in June or July, 1868, and stayed there till just before they closed, in latter part of 1869; she was first engaged in fanning corsets, and

afterwards in the laundry, when she noticed corsets that were not fanned; that the pockets of these corsets were stopped off in the weaving at different heights, and that she observed these corsets which were not fanned, in looking over those that were. This witness could not be mistaken, because it was the difference between the old and the new way that attracted her attention.

Hannah Messing [folio 173, *et seq.*,] says that she worked for the Convex Weaving Company, commencing in July, 1868, and leaving off in January, 1869; that among other duties she had to unpack the wet corsets, to arrange the sizes of corsets, and pack them away; that both fanned corsets and corsets with the pockets stopped off in the weaving were thus handled by her, and they were mixed together; that in the latter the pockets were stopped off at different heights. She further says that they were packed in boxes and sent to the city. This witness also saw both kinds, and speaks positively as to the difference.

Katie Ryan [folio 206, *et seq.*,] says that she went to work for the Convex Weaving Company in the year 1867, and worked there nearly two years; that her occupation while there was that of inserting the bones in the pockets of corsets; she says that both kinds were made there, viz.: those in which the bone pockets were stopped by weaving and those in which they were stopped by fanning. She states that the former were "stopped off by three cords running up to the top, stopped off square," and [folio 207] that the bone pockets "were of different heights to suit the different sizes of the corsets," and they were of different heights in the same corset. This witness says that some days twenty dozens of these

corsets, with pockets stopped in the weaving, were made; "some days not so many; some days none at all." These corsets [folio 208] were taken down stairs to the laundry and finished and sent away. Who could better know how the pockets were stopped off than the person whose business it was to fill the pockets and who was familiar with the old way of stopping them off? This witness even tells us what was the appearance or locality of the cords by which the pockets were stopped off by weaving.

Mary Rehm [folio 210, *et seq.*,] says that she went to work for the Convex Weaving Company in 1867, and continued there until the concern closed up; that she was engaged in boning corsets, some of which had the bone pockets stopped off at the top and others extended all through. She further says that she heard the testimony of Katie Ryan, and that her statement regarding the bone pockets being stopped off was correct. This witness also adds that, after boning, the corsets were sent to the laundry to be washed and pressed.

Kate Stone [folio 167, *et seq.*,] says that she commenced working for the Convex Weaving Company in July, 1867; that her occupation was in the laundry under Mr. Gregersen as foreman; that she was engaged at all the different stages of laundering, and that she so worked there in the laundry until the breaking up of the company. She says that when she first went there the bone pockets were stopped off by fanning, but that in 1868 they were stopped off by weaving, and in each case at different heights. She says that after they commenced to stop off the pockets by weaving they still continued the fanning, and that, she should think, about half were done one way and half the other, and that in

the latter part of the year 1868 fifty dozens per day of both kinds were put on the forms in the laundry. She says [folio 170] that these corsets were sent "into the packing room to be packed previous to being sent away." At folio 171 she says that the stopping points of the pockets in these corsets in which the pockets were stopped off in the weaving were about the same as in "Complainant's Exhibit No. 2."

Gussie Truka [folio 175, *et seq.*,] says that she commenced working for the Convex Weaving Company in July, 1867, and stayed as long as they continued work; that her occupation was that of cleaning the cloth when it came off the looms—that is, cutting the knots off with scissors; that she performed this operation upon corsets in which the pockets had been stopped off in the weaving, at different heights.

Thus, there were called on the part of the Appellees eight witnesses, occupied in different parts of the establishment of the Convex Weaving Company, at laundering, at clipping, at fanning, about the machinery, at boning, and at packing; thus, having all these varied opportunities of knowing the condition of the corsets in different stages; and they all testify most distinctly that between July, 1867, and the spring of 1869, corsets in considerable numbers were manufactured by said company in which the bone pockets were stopped off in the weaving at different heights in the same corset. These witnesses could not be mistaken. The corsets were manufactured by the Convex Weaving Company, and at their place, and prior to 1870, or all of these eight witnesses have deliberately perjured themselves. An amount of positive testimony is here presented which

no theories, surmises or inferences can resist. The fact stands proved by eight credible, unimpeached witnesses.

It is a fact worth noticing that Mr. Gregersen is the only one of these eight witnesses who is or ever has been in the employ of the Appellees, and he is a man high in position and trust, and not likely to pervert or be mistaken in what he swears to. The others of Appellees' witnesses have no interest or bias whatever in the suit. When we come to look at the witnesses called to throw doubt upon this testimony, we shall find the circumstances quite different.

It will be observed that the witnesses of Appellees who testify to the manufacture of these corsets by the Convex Weaving Company, cover by their testimony, every one of them, a period between July, 1868, and January, 1869. Some of them reach farther back than July, 1868, and some farther forward than February, 1869, but they all embrace in their testimony the above-named period of five months.

The Appellant attempts to damage this testimony on the part of the Appellees by examining some witnesses who were also employed at the factory of the Convex Weaving Company, and who say that they did not see, while there, any such corsets. There are eleven of these witnesses, and their names are as follows:—

1 Katie Berner,
2 Julia Schilling,
3 Mary Tienken,
4 Johanna Tienken,
5 Anna Anthony,
6 Letitia Holliday,
7 Emilia Heberlin,
8 J. J. Mangold,
9 Lorenz Mitter,
10 John Baer,
11 Charles Gahren.

Here are eleven witnesses who say they did not see such corsets, against eight who say they did. The first thing noticeable is the character of this testimony. On one side it is affirmative as to what they actually saw, and manipulated and understood the effect of its peculiarity. On the other side the testimony is merely negative as to what they did not see.

The situation of the Appellant is similar to that of the Irishman, who thought to vindicate himself for having committed assault and battery by calling witnesses who did not see the acts complained of.

Many things are seen by some, which others, though even with good opportunities, failed to see. Of these eleven witnesses only four state that their opportunities were such that they must have known of such corsets had they been made there while they were there. These four witnesses are John Baer, Letitia Holliday, J. J. Mangold and Lorenz Mitter. It does not appear that Mangold was with the company during the years 1867 and 1868, at all, so that he may as well be left out. Letitia Holliday did not enter the employment of the company till June, 1868, so that she was with the company only about a year. John Baer, the third of these four witnesses, is proved by three of Appellees' witnesses to have told them that such corsets were woven by the Convex Weaving Company while he was there, and yet he comes himself and swears to the contrary. The three witnesses of Appellees who thus swear, are James Lyall [folio 324], a manufacturer of looms, inventor of what is known as the positive motion loom, and member of the U. S. Corset Company, George J. Gregersen [folio 326], foreman of finishing department of Appellees, and Charles R. Saat-

weber [folio 329], foreman in weaving department of Appellees. This witness, Baer, is in Appellant's employ. Lorenz Mitter, the fourth of these witnesses, appears to have been considered useless by the foreman of the Appellees on the former's application for work.

Of the seven remaining witnesses, six are proved to be and to have been for some time in the employ of the Appellant, and all but one are girls, while of the eight witnesses called by the Appellees, only one, and he a man of high position and responsibility, is, or ever has been, in the employ of the Appellees.

This case comes within the rule of law stated in Stitt *v.* Hindekopers, 17 Wallace, 394, in the following words:—

> "It is a rule of presumptions that ordinarily a witness who testifies to an affirmative is to be preferred to one who testifies to a negative, because he who testifies to a negative may have forgotten. It is possible to forget a thing that did happen. It is not possible to remember a thing that never existed."

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